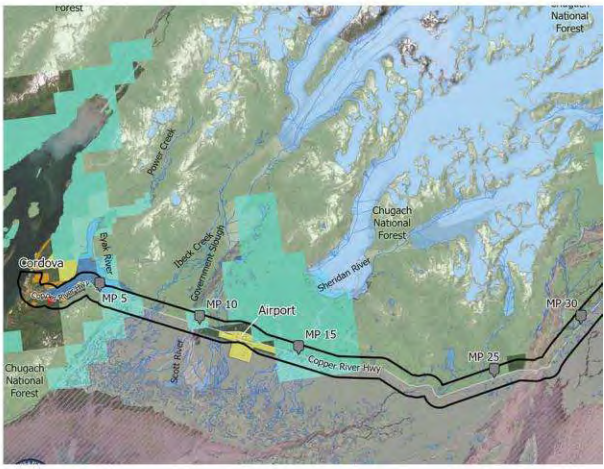
COPPER RIVER HIGHWAY TRANSPORTATION MASTER PLAN

DRAFT | AUGUST 2023



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Acronyms

ADF&G	Alaska Department of Fish and Game
ANCSA	Alaska Native Claims Settlement Act
CDGB	Community Development Block Grants
CIP	Capital Improvement Plan
City	City of Cordova
CRH	Copper River Highway
CRH TMP	Copper River Highway Transportation Master Plan
CRWP	Copper River Watershed Project
DCCED	Alaska Department of Commerce, Community, and Economic Development
DNR	Alaska Department of Natural Resources
DOT&PF	Alaska Department of Transportation and Public Facilities
DOLWD	Alaska Department of Labor and Workforce Development
FHWA	Federal Highway Administration
GIS	Geographic Information System(s)
HSIP	Highway Safety Improvements Program
LRTP	Long Range Transportation Plan
MP	Mile Post
NBI	National Bridge Inventory Number
NEPA	National Environmental Policy Act
NSFLTP	Nationally Significant Federal Lands and Tribal Projects Program
NVE	Native Village of Eyak
PEL	Planning and Environmental Linkages
PIP	Public Involvement Plan
PWS	Prince William Sound
ROW	Right-of-Way
SAC	Stakeholder Advisory Committee
STBG	Surface Transportation Block Grant
STIP	Statewide Transportation Improvement Program
USCG	United States Coast Guard
USFS	United States Forest Service

Introduction/Executive Summary

What does the future of the Copper River Highway (CRH) look like?

The CRH is a historic transportation link for the residents of Cordova, the Prince William Sound (PWS) region, and the Copper River Valley basin. Over time, however, the highway's bridge and roadway infrastructure has succumbed to natural and environmental challenges and is currently impassible beyond MP 36. Yet, the highway remains an iconic and critical lifeline to the area's economic, environmental, and social future.

In 2018, the Alaska Department of Transportation and Public Facilities (DOT&PF) initiated a Planning and Environmental Linkages (PEL) study for the Copper River Highway to explore what it would take to reconstruct, repair, and replace transportation infrastructure between Milepost (MP) 27 and MP 51 that had been damaged by scouring and erosion by the Copper River. During the PEL process, the Federal Highway Administration (FHWA) – Western Federal Lands (WFL) requested DOT&PF develop a transportation master plan to envision the transportation and land use needs of the CRH Corridor throughout this extent.

In 2021, DOT&PF initiated the Copper River Highway Transportation Master Plan (CRH TMP) process to guide future decisions on transportation and land use development for the entire highway corridor, from the Alaska Ferry Terminal at MP 0 to Abercrombie Creek at MP 51, just past the Million Dollar Bridge.

Working with a Stakeholder Advisory Committee (SAC)[1] and with public input, more than 80 individual projects were identified to support the region's long-term vision for the highway:

> *The Copper River Highway will be a safe, reliable, multi-modal transportation corridor that provides access to recreational, economic, and cultural activities for community members and visitors alike while sustaining the area's scenic, cultural and ecological attributes.*

The projects were consolidated into similar themes and ranked by the SAC to identify the highest short and long-term priorities based on the overarching goals of sustainability, safety, system preservation, connectivity, economic and environmental health, and "other" as identified by the SAC.

Ultimately, this document and its evaluation of high priority projects provides a roadmap for DOT&PF and other entities who share a responsibility for supporting a safe, efficient, and effective future for the Copper River Highway.

[1] The SAC invited participants from the Native Village of Eyak, City of Cordova, United States Forest Service, Alaska Department of Fish and Game, Alaska Department of Natural resources, Copper River Watershed Project, Chugach Alaska Native Corporation, The Eyak Corporation, Prince William Sound Economic Development District, Cordova Chamber of Commerce and Local Businesses, University of Alaska, Recreational Users, and Cordova Elected Officials.

A Vision for the Copper River Highway

The CRH will be a safe, reliable, multi-modal transportation corridor that provides access to recreational, economic, and cultural activities for community members and visitors alike while sustaining the area's scenic, cultural, and ecological attributes.

Plan Purpose

A master plan is high-level planning tool used to guide future decisions on transportation and land use development. It details existing conditions, analyzes needs, and develops recommendations based on community vision and input. The document serves as a foundation for future project planning, environmental review, and funding. It sets the stage for everything that comes next.

In 2021, the DOT&PF and the NVE initiated the master plan process for a 51-mile-long highway corridor between Cordova, Alaska, and Abercrombie Creek with a simple question:

What does the future look like for the CRH corridor?

The CRH (Alaska Route 10) as it exists today spans more than 50 miles, from the ferry terminal near downtown Cordova and past the airport into the vast Copper River Delta. Prior to August 2011, the CRH provided access to recreational and subsistence resources from Cordova to Abercrombie Creek and the Million Dollar Bridge, passing through world class scenic wilderness; this changed with the closure at the MP 36 bridge over the Copper River, National Bridge Inventory (NBI) #339. Further, shifting of river channels have eroded portions of the CRH between MP 44 and 45 and caused a significant washout over the highway. Additionally, damage to one of the icebreakers protecting the Million Dollar Bridge (MP 49) threatens this historic structure and tourist attraction. DOT&PF and NVE recognized a critical need to develop a master plan for the CRH corridor and identify a vision for the corridor's future use.

The purpose of the CRH TMP is to document existing conditions along the CRH between MP 0 and MP 51 (the Planning Study Area/corridor), including the Million Dollar Bridge and recreational and resource monitoring sites within the study area; conduct stakeholder and public outreach to develop a vision statement and goals for the CRH; and identify potential transportation needs and issues through 2048. The master plan prioritizes project needs and provides a high-level planning context for the CRH PEL study, a report focused on developing potential alternatives to address damaged infrastructure between MP 27 and 51.

The CRH TMP is multi-modal[2], considering transportation needs within the larger highway corridor, focusing on roadway, aviation, riverine, recreational, and other surface improvements. Ultimately, this document can be used by DOT&PF, NVE, the City of Cordova (City), and other organizations to secure funding for critical infrastructure projects, supporting the area's economic, social, and cultural needs.

Roles and Responsibilities

Alaska Department of Transportation and Public Facilities

DOT&PF's mission is to keep Alaska moving through service and infrastructure. It is responsible for providing safe and efficient transportation systems and supporting economic opportunities through access. As the lead agency for both the CRH TMP and PEL, DOT&PF is responsible for decision-making and for designing, constructing, and maintaining transportation infrastructure within the DOT&PF Right-of-Way (ROW) for safe and efficient travel[3].

Native Village of Eyak

Cordova and the Copper River Delta are traditional lands of the Eyak, Alutiiq, Tlingit, and Ahtna peoples. NVE is the federally recognized Tribe that provides economic development, cultural preservation, and other services within PWS, Copper River, and Gulf of Alaska region. NVE's Transportation Program works with state and federal agencies to enhance and maintain access to subsistence and traditional use areas as well as areas used for recreation. As a Tribal government, NVE is eligible to receive federal transportation funds.

City of Cordova

Incorporated in 1909, the City is a home rule city with power for planning, platting, and land-use regulation. The City maintains local roads and is eligible for federal funding to support housing, economic development, transportation, and other services.

Master Plan or PEL?

Master Plans are planning documents that consider modal or area needs over a span of years, based on community-driven vision and goals.

PEL studies evaluate a large study area to identify and prioritize smaller independent projects and produce decisions and analysis that can be used in a National Environmental Policy Act (NEPA) document. The PEL typically references goals identified in a master plan and other planning-level documents.

While there is overlap between the CRH TMP and the CRH PEL, there are differences. The CRH TMP assesses broad level conceptual ideas about what the public would like to see as long-term transportation infrastructure improvements, but it does not provide specific analysis of what that would entail. The CRH PEL addresses those questions and provides detailed analysis of the actions that would be required to reconstruct, repair, or replace the damaged highway infrastructure within the CRH PEL study area (MP 27 through MP 51).

[2] While the plan is multi-modal in nature, Alaska Marine Highway System ferry and air elements are considered under separate planning processes.
[3] DOT&PF ROW along the CRH is typically 150 feet measured from the highway's center line.

NVE and the City are key partners in this planning effort, with potential responsibility for funding and implementation of projects identified during the planning process.

Project Area and History

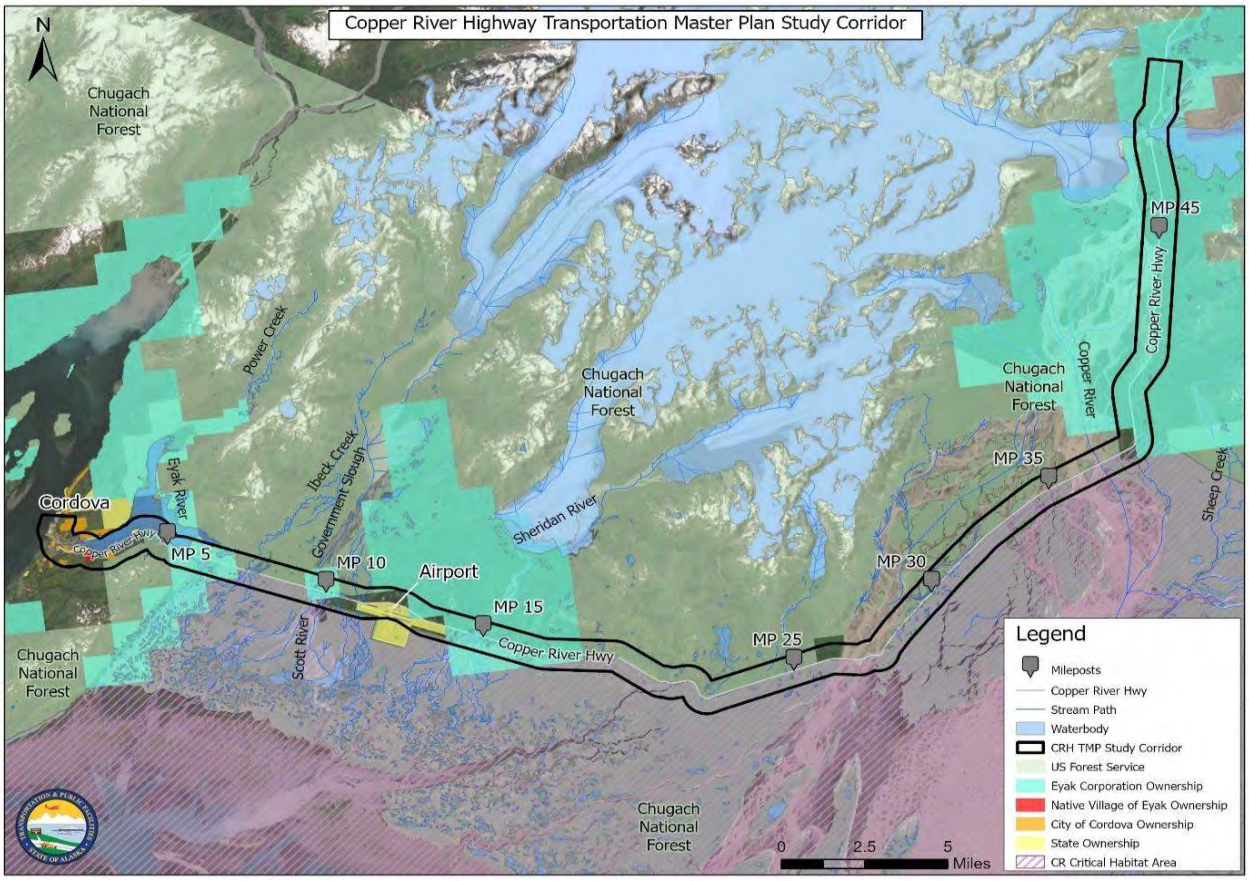


Figure 1. Copper River Highway Transportation Master Plan Study Corridor and Landowners

The Copper River Delta and its surrounding lands are the past and present traditional lands of the Eyak, Alutiiq, Tlingit, and Ahtna peoples who traded, hunted, and fished throughout the area. The Eyak People had four main villages near what is present day Cordova[4], and their descendants continue to promote the self-determination of Tribal members.

The city of Cordova, population 2,545, is located at the southeastern end of PWS's coastal rainforest in the Gulf of Alaska, 150 air-miles from Anchorage, Alaska's largest city. It is within the gulf coast maritime climate zone, characterized by a rainy atmosphere, long, cold winters, and mild summers. Cordova is only accessed by plane or boat; there is no direct road access to the area. The State of Alaska owns and maintains the ferry terminal at MP 0 of the CRH as well as the Merle K. "Mudhole" Smith Airport at Mile

[4] Eyak, the last of the four villages, was annexed by the City of Cordova in 1972.

13[5]. Uses within DOT&PF's ROW include foot paths, bike paths, frontage roads, pullouts, parking areas, placement of utilities, and other public uses as DOT&PF deems necessary for the welfare of the public.

The roots of the current city began in 1905 with the initial townsite which grew significantly during construction of the Copper River & Northwestern Railway (CR&NW), stretching 196 miles between the City's harbor and the Kennecott copper mines. Mining production flourished and produced $200 million worth of copper until the late 1930's when the ore began to dry up[6]. Soon after, the ROW was donated to the United States with the intention of converting the railbed to a regional highway connecting Cordova to Chitina. Construction on the CRH began in 1945, however construction progressed only to MP 59, a few miles beyond the Million Dollar Bridge, when it was halted after the Good Friday Earthquake of 1964.[7]

Today, the CRH follows the path of the lower 52 miles of the former rail line and is listed as an Alaska Scenic Byway.

Cordova has always relied on natural resources for its economic fortune, from the copper mines in Kennecott to the one of the first producing oilfield in Alaska at Katalla,[8] commercial fishing, and tourism.

The Copper River Delta is considered critical habitat for shorebirds and salmon, and its vast wetland ecosystem draws millions of shorebirds each spring. The delta is shaped by the braided channels of the Copper River and its highly variable water flows.

Natural and man-made disasters also shaped the region.

In 1964, the epicenter of the 9.2 magnitude Good Friday earthquake was 70 miles east and southeast of Cordova. The initial event and its aftershocks uplifted land nearly 7.5 feet[9], and the quake and subsequent tsunami significantly damaged infrastructure throughout the region – including

The Good Friday Earthquake, March 27, 1964

On the Copper River Highway, damage was severe. The Cordova Times (April 2, 1964) reported that between Eyak River (4 or 5 miles east of Cordova) and Mile 13 there were "cracks 6 to 8 inches wide across the road at intervals of about 75 feet." Locally, some spots sank several feet and "most of the roadway sank about 2 feet, leaving all bridges that amount higher than the roadway." The Times also states that a Department of Highways Engineer, Mr. Arlan Davis, reported that "it appears that serious damage was inflicted on every bridge, including the famous Million Dollar Bridge, which has one end of the northern span in the river [Copper River]." The abandoned railroad bridge near Abercombie Rapids on the Copper River, about 15 miles north of the Million Dollar Bridge, has been damaged. This bridge was to be part of the highway system.

Alaska's Good Friday Earthquake, March 27, 1964: A Preliminary Geologic Evaluation, US Geological Survey

[5] State of Alaska Community Database
[6] Janson, Lone (1975). *The Copper Spike*. Alaska Northwest Publishing Co.
[7] Quinn, Alfredo O. (1995). *Iron Rails to Alaskan Copper*. D'Aloguin Publishing Co.
[8] The Katalla Oil Field is 47 miles southeast of Cordova that operated from 1902 until 1933.
[9] Alaska's Good Friday Earthquake, March 27, 1964: A Preliminary Geologic Evaluation, US Geological Survey, page 5.

the loss of Cordova's deep-water port. The Earthquake rendered the Million Dollar Bridge unusable and it was not fully reconstructed and opened again until 2005.

On March 24, 1989, the Exxon Valdez spilled 11 million gallons of oil into Prince William Sound, devastating sensitive marine and terrestrial environments. Important commercial fisheries were severely impacted and the effects of this caused economic depression in Cordova. Although much of the PWS has since recovered, the oil spill showed the need for better spill response practices. In 2022, NVE received a grant from the FHWA to improve land access to a "to-be-developed" Shepard Point Marine Tribal Transportation Oil Spill and Marine Casualty Response Facility[10] west of Cordova.

The river and natural systems continue to shape the community.

The CRH currently has 11 bridges crossing the river delta and accessing U.S. Forest Service (USFS)-managed Chugach National Forest lands. In 2011, bridge abutment erosion of NBI #339 at MP 36 resulted in closure of the bridge and eventually led to more than 1,000 feet of the highway being washed out, leaving the CRH inaccessible to vehicle traffic beyond that point. A project to reconstruct NBI #339 was closed due to lack of funding for design and construction. As a result, two of the most popular scenic destinations are no longer accessible by road, reducing seasonal use at the Million Dollar Bridge and Childs Glacier from 8,000 to 1,000 visitor use days[11].

Economy

Cordova's largest economic sectors are local government, trade, transportation and utilities, and manufacturing (which includes seafood processing)[12]. Its immediate proximity to the seafood rich waters of the eastern PWS, make fishing, fish processing, and trade a significant portion of the city's economy. The City of Cordova estimates that nearly half of all households have someone working in the fishing industry, and Trident Seafoods, Inc. is a major employer. The U.S. Census describes fishing (along with forestry, agriculture, hunting, and mining) as 21.9% of Cordova's industry. Retail trade follows at 17.1%, then public administration at 15.4%, and lastly educational, healthcare, and social assistance services are close behind at 14.4%. The Cordova School District, Cordova Community Medical Center, and City also rank as some of the largest employers in town. Cordova also has a DOT&PF maintenance facility, a U.S. Coast Guard (USCG) facility, is home port to a USCG buoy tender, and provides access to parts of Chugach National Forest.

[10] https://www.shepardpointoilspillresponse.com/news, https://www.poa.usace.army.mil/Missions/Regulatory/Public-Notices/Article/478791/poa-1994-1014-orca-inlet/
[11] Chugach National Forest Land Management Plan, Page 122
[12] Cordova Comprehensive Plan https://www.cityofcordova.net/wp-content/uploads/2022/08/Cordova-Comprehensive-Plan-Appendix-6-Economic-Development-Background.pdf

Cordova has a median household income of $77,667, only slightly under the statewide median of $77,845 but has a poverty rate well beneath the state average: 1.7% compared to 10.5%. In 2020, according to the United States Census Bureau, Cordova possessed a 64.3% employment rate. Forty-five percent (45%) of workers were employed in a private company, while 21.9% were employed in either local, state, or federal government; 27.9% were self-employed.

Land Transportation

The CRH is classified as a Major Collector roadway up to NBI #339 at MP 36, which means it supports moderate traffic capacity with a maximum posted speed of 55 mph. The CRH connects to the City, at its most westerly terminus, with the Merle K "Mudhole" Smith Airport at MP 13, and the lands to the east and northeast that make up part of the Copper River Delta. The eastern portion of the highway, originally built as a railroad for transporting mineral ore has, since the 1950s, been used as a means of accessing hunting, subsistence, and recreational lands as well as native allotments. The highway has no other connections and, since 2011, has only been usable for the first 36 miles due to road washouts from heavy scouring and river erosion. Prior to the washouts the road accessed the Childs Glacier and the Million Dollar Bridge at its most easterly and northerly terminus, which served as tourist attractions. There are also access points to (U.S. Forest Service) USFS trailheads, campgrounds, and boat launches along the length of the highway, although several are now inaccessible.

Marine Transportation and Aviation

The CRH connects the City and the Cordova Ferry Terminal with the Merle K "Mudhole" Smith Airport. Because the CRH is not connected to the primary Alaska road network, the city and region rely critically on the ferry terminal and airport for outside transportation needs. The CRH, therefore, serves as a connection between the two and the rest of the Copper River Delta, and is of significant importance for regional transportation availability. The impacts of both the Cordova Merle K. "Mudhole" Smith Airport Master Plan[13] and the Alaska Marine Highway System Long-Range Plan[14] should be taken into consideration for future developments within the CRH.

Previous Planning Efforts

Through previous regional and local planning efforts, DOT&PF recognizes that residents of the City – as well as its visitors – value the city's sense of community and small-town feel, access to outdoor recreation and subsistence opportunities, and its natural resources and beautiful landscapes. The City's

[13] https://cdvairport.com/
[14] https://dot.alaska.gov/amhs/operations/

location also provides uniquely Alaskan transportation challenges such as limited infrastructure, lack of economic diversity, and limited resources to operate, maintain, and replace public facilities.

DOT&PF looked at previous planning documents such as the City of Cordova Comprehensive Plan, Cordova Airport Master Plan, and Prince William Sound Economic Development District Comprehensive Economic Development Strategy. To confirm the CRH TMP supports previously stated agency and community goals and needs (see Appendix A: Planning Resources). This plan also considered state and federal highway planning goals and requirements addressing safety, resiliency, system management, economic vitality, and system performance, recreational priorities, as well as other strategic investment areas outlined in the Statewide Transportation Improvement Program (STIP).

Planning Process

As mentioned previously, the need for a CRH TMP was identified during the PEL development process, as a result the PEL and CRH TMP processes are happening concurrently.

Typically, the planning process begins with a long-range plan, which identifies corridor-level visions, goals, strategies, and actions that support multimodal transportation. These plans look at a 25-year timeframe and are updated every five years to reflect current conditions. In addition to identifying transportation issues and concerns, these plans support long range planning and land use decisions based on community values.

In the case of the CRH TMP, critical projects identified first in the PEL – as well as other projects identified by the community and other stakeholders – have been carried forward as part of this plan. The two efforts are closely linked and complement each other.

Working closely with community stakeholders and user groups, DOT&PF identified a vision and goals for long-range functionality and transportation needs of the CRH. DOT&PF looked at existing conditions and sought input on what projects or activities could support that vision based on the community's economic and land use goals. Working with the SAC, DOT&PF prioritized projects using goal-driven

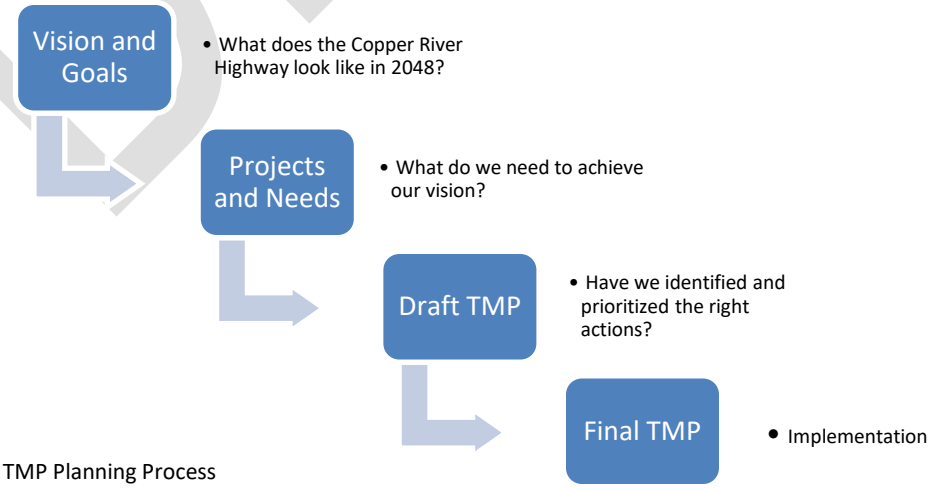


Figure 2. CRH TMP Planning Process

criteria and developed planning level cost estimates for the five highest ranking projects which can be used for future planning, design, and construction funding requests.

Public Involvement

Planning efforts are most successful when stakeholders understand how and why long-term goals and project needs are identified, how they benefit their community, and have a voice in the decision-making process. This understanding has been the heart of both the PEL and CRH TMP processes.

PEL Outreach

Public involvement activities related to corridor improvements began in December 2019 when DOT&PF hosted a public meeting for the PEL. Cordova residents were invited to share their ideas on what it would take to reconstruct, repair, and replace damaged transportation infrastructure in the PEL project area, MP 27 to MP 51 (Abercrombie Creek). DOT&PF also submitted consultation requests to Alaska Native Tribes, government agencies, and Alaska Native Corporations in January 2022 and met with the NVE Tribal Council, The Eyak Corporation, the USFS, and City in May 2022. DOT&PF's PEL team members also actively participated in the CRH TMP public outreach efforts.

Table 1. SAC – Invited Participants
Native Village of Eyak
City of Cordova
United States Forest Service
Alaska Department of Fish and Game
Alaska Department of Natural Resources, Division of Mining, Land, and Water
Copper River Watershed Project
Chugach Alaska Native Corporation
The Eyak Corporation
Prince William Sound Economic Development District
Cordova Chamber of Commerce
Local Businesses
University of Alaska Land Management
Recreation Users
City Elected Officials

CRH TMP Outreach

When the CRH TMP effort began in 2022, DOT&PF developed a broader Public Involvement Plan (PIP) that outlined the goals and framework for public participation in the CRH TMP development, including:

- Developing a strong, collaborative working relationship between the project team and project stakeholders.
- Keeping the public informed on the CRH TMP process and issues, listening to and acknowledging concerns, and providing feedback on how public input has influenced project decisions.
- Communicating CRH TMP milestones and opportunities for stakeholders to provide meaningful input through a variety of communication methods.
- Utilizing visualizations and illustrations to convey alternatives effectively.
- Responding to inquiries and comments received during the project, informing stakeholders how their input is reflected (or not reflected) in the draft and final CRH TMP document.

As part of its public involvement efforts, DOT&PF established an SAC, representing economic, community, environmental, recreational, and social interests. SAC representatives including the city of Cordova, NVE, and user groups, such as the Cordova Chamber of Commerce, USFS, and Copper River Watershed Project (CRWP). The SAC met during the planning process to identify existing conditions and needs; provided input on corridor vision, goals, and priorities; provided comment on proposed project ranking criteria, and then ranked identified projects using an online platform.

DOT&PF also hosted public meetings and invited community members to provide input on the draft vision for the corridor and identify specific project needs. More than 25 people attended the kick-off meeting in January 2022 to help answer key questions such as:

- How can the CRH serve the community of Cordova in 2047 and beyond?
- What needs can the highway corridor address (e.g., support economic development, improve access to outdoor recreation and subsistence activities, etc.)?
- What projects could help meet those needs?

The January 2022 public meeting was advertised in emailed newsletters, post cards, and advertisements in the Cordova Times newspaper.

In addition to a project website, DOT&PF utilized an online survey to gather input from individuals who were unable to attend the in-person open house. The survey ran from January 14, 2022, to August 31, 2022; more than 85 individual comments were received in categories ranging from recreation infrastructure, access, commercial development, bike/pedestrian infrastructure, fish/wildlife passage, and other improvements.

The SAC will be invited to comment on the draft CRH TMP, and a second public meeting will be held in Cordova in 2023 to seek comments on the draft document.

Copies and examples of public outreach materials for the PEL and CRH TMP are included in Appendix B: Public Involvement.

Vision, Goals, and Evaluation Criteria

The public and SAC provided the contextual framework for the long-range plan with the following vision for the highway corridor:

The Copper River Highway will be a safe, reliable, multi-modal transportation corridor that provides access to recreational, economic, and cultural activities for community members and visitors alike while sustaining the area's scenic, cultural, and ecological attributes.

The vision became the foundation for identifying goals, needs, and evaluation criteria, which were developed by DOT&PF with SAC input. Once a range of projects had been identified, the SAC used the goals and criteria to rank identified projects and needs.

Goal 1: Sustainability: Supports fiscal responsibility.

Evaluation Criteria

- Reduces long-term operations and maintenance costs.
- Leverages multiple funding sources and partnerships.
- Has a long-term cost benefit.
- Limits long-term negative environmental or human impacts.
- Supports long-term economic development.
- Supports resiliency.

Goal 2: Safety: Improves safety, security, and access.

Evaluation Criteria

- Addresses critical needs with immediate consequences for health and safety.
- Improves long-term health and safety through improved transportation conditions.
- Meets FHWA/Federal Aviation Administration health and safety design criteria.
- Provides safe multi-modal transportation access options.
- Improves multi-modal transportation safety.

Goal 3: System Preservation: Preserves and maintains the existing transportation system.

Evaluation Criteria

- Improves the existing system or facility.
- Supports preventive maintenance.
- Supports other state and/or federal investments in infrastructure.
- Maintains established ROW and/or eliminates encroachments.

Goal 4: **Connectivity: Improves intermodal connections.**

Evaluation Criteria

- Improves access to existing intermodal facilities.
- Creates new infrastructure in support of other transportation systems or land uses.
- Supports multi-modal transportation options.

Goal 5: **Economic and Environmental Health: Supports economic, environmental, and social well-being.**

Evaluation Criteria

- Supports connectivity of fish and wildlife habitat.
- Improves access to recreational, cultural, and historic sites and subsistence opportunities.
- Improves quality of life (e.g., dust control, access to health and sanitation facilities)
- Creates opportunities for economic development.
- Is identified in existing plans (e.g., City Comprehensive Plan, Long Range Transportation Plan (LRTP), etc.)

Goal 6: **Other**

Evaluation Criteria

- Has community support.
- Protects scenic qualities.
- Minimizes impact on minority and disadvantaged populations.
- Potential for future expandability.

Existing Conditions

Segment of the CRH, between MP 38 through MP 43.5 that is threatened by erosion from the Copper River. View looking south, photograph taken by DOT&PF on June 22, 2021. Streamflow throughout main Copper River Channel and streams have likely continued to shift eastward closer to the CRH since photo was taken.

The CRH extends from the ferry terminal (MP 0) to Abercrombie Creek (MP 51), just beyond the Million Dollar Bridge (MP 49). See figure 3 for full extent of CRH TMP. The highway connects Cordova's downtown to the airport, to recreational and subsistence resources within the Chugach National Forest, and to privately held or Native-owned properties that provide opportunities for economic development, housing, and community development. While Cordova relies on marine and air service for external travel, travel and commerce within the community depends on well-maintained, functional transportation linkages within the CRH corridor. Erosion, high water, and aging infrastructure have forced DOT&PF to close portions of the CRH – including access to the Million Dollar Bridge, one of the region's biggest scenic attractions.

The CRH is classified as a Major Collector roadway up to NBI #339 at MP 36 and supports moderate traffic capacity with a maximum speed of 55 mph. Between MP 36 and 51, the highway does not have a classified service level. DOT&PF's ROW varies from 100 to 150 feet along either side of the CRH (150' typical). Uses of the ROW include foot paths, bike paths, frontage roads, pullouts, parking areas, placement of utilities, and other public uses as DOT&PF deems necessary for the welfare of the public, although much of this ROW is not extensively developed.

Significant portions of the highway are threatened by fluvial erosion, the most notable examples include:

- The segment of land between NBI #339 and NBI #340 has completely eroded away. As of September 2021, the river's eastward migration had completely eroded about 1,000 linear feet along this segment.
- Segments of the highway from MP 38-45 are being threatened by river erosion, with the segment between MP 44-45 having already washed out.
- The ice breaker protecting Pier 1 on the Million Dollar Bridge has moved downstream and is no longer providing adequate protection to Pier 1.
- DOT&PF's Bridge Section has recommended the ice breaker at Pier 2 on the Million Dollar Bridge be repaired or replaced.
- Many culverts along the CRH no longer provide adequate fish passage and need to be replaced, especially beyond MP 38.

The first 13 miles of the CRH are paved, to approximately the Merle K “Mudhole” Smith Airport, and the road is primarily gravel fill thereafter with paved sections at bridges and bridge approaches.

Figure 3. Extent of CRH TMP Considerations

Identified Needs and Proposed Investment

Project Evaluation

More than 85 projects, ideas, and needs were suggested by the SAC, during public meetings, and via the online survey. Comments ranged from improving bike and pedestrian access between downtown and the airport to completing highway access past the Million Dollar Bridge to Chitina. Many suggestions were similar or overlapped significantly, and after review were eventually consolidated into 31 distinct projects.

After consolidation, the SAC utilized an online tool (See Figure 4) to evaluate each project based on plan goals and objectives on a scale from 0 to 3, where 0 indicated No Applicability, 1 indicated Low Applicability, 2 indicated Moderate Applicability, and 3 indicated High Applicability.

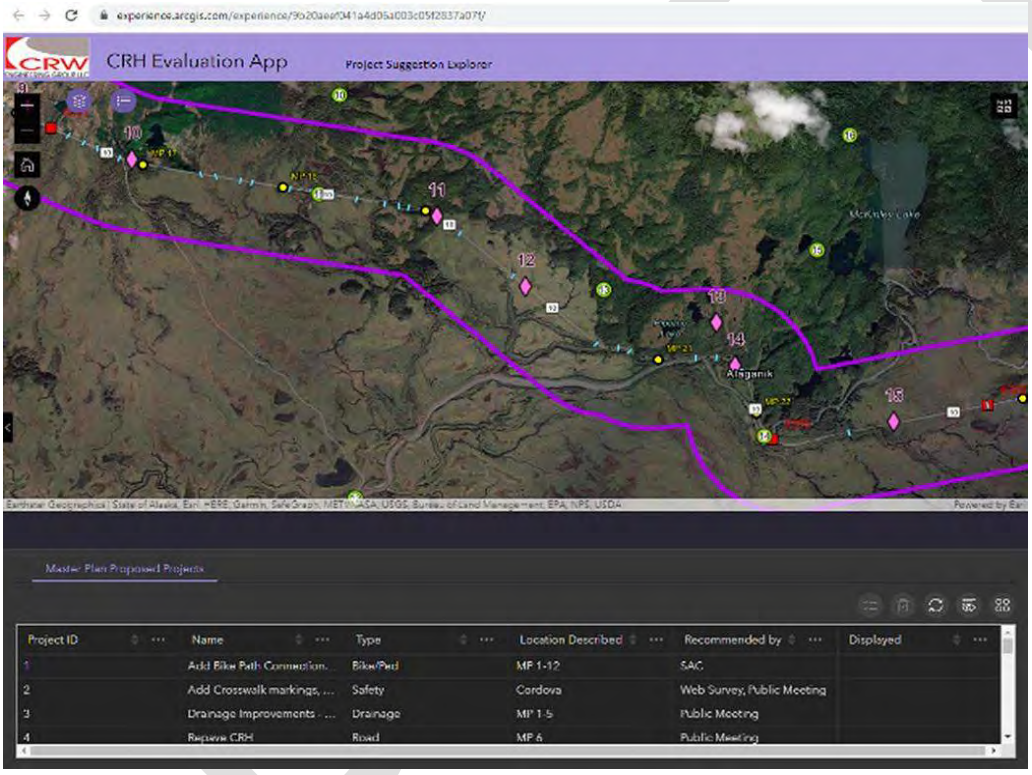


Figure 4. Proposed Projects Evaluation Tool

Following SAC review, mean scores were generated for each individual criterion. Because each goal had a different number of underlying review criteria, the overall MEAN score for each Goal area was weighted to distribute each series equally and produce a finalized MEAN score for each project. DOT&PF reviewed the results and a list of the top 5 projects was generated. Table 2 includes the top 5 projects identified for consideration, ordered by associated scoring and ranking. See Appendix D for full list of projects ranked by mean scores. For the practical purposes of scope definition and estimation, project descriptions may have been reworded slightly for development of alternatives.

Table 2. Top 5 Evaluation MEAN Scores and Overall Ranking, Summarized

Project No.	Project Description	Mean Score Total	Rank
5	Improve parking at Ibeck Creek and at heavily used fishing locations or widen existing narrow shoulder	12.063	1
6	Widen shoulder/separate bike path and safety improvements from MP 0 - MP 13 (Cordova Airport)	11.782	2
19	Replace and maintain 36-Mile Bridge (Bridge 339), clear brush, snow, and repair washout; provide access to land beyond MP 36	11.542	3
23	Repair and maintain access to Million Dollar Bridge and subsistence and recreational areas past MP 51	11.493	4
22	Replace failing culverts and culverts inhibiting fish passage	11.312	5

Ranked Alternatives

The top five ranked projects were further evaluated to provide a more detailed scope and rough order of magnitude cost estimate for future capital projects programming purposes.

Project #1 Improve Parking at Ibeck Creek

Location

Ibeck Creek is located at MP 7.5 on the CRH. is one of the most popular and accessible fishing areas on the Cordova road system (US Forest Service, 2023). Highest use starts in mid-August when the coho salmon are running, but fishing activities occur in mid-April for Dolly Varden and late May for the Eulachon (Hooligan) run. Fishing activities take place on both the east and west banks of Ibeck Creek. NBI #349 crosses the main body of Ibeck Creek and NBI #348 crosses a western tributary of Ibeck Creek (See Figure 5 below).

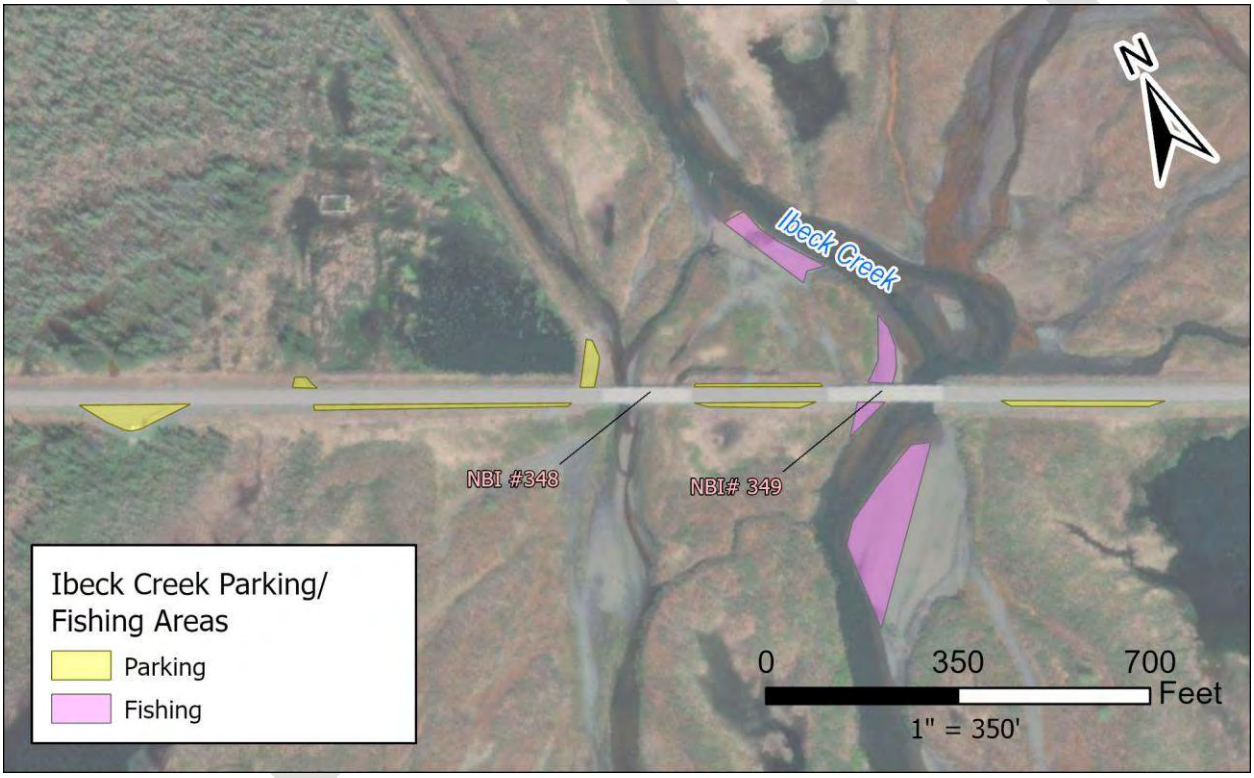


Figure 5. Ibeck Creek Existing Conditions and Parking/Fishing Areas

Existing Conditions

There are approximately 21 parallel parking spaces within 500 feet of Ibeck Creek, none of which provide a buffer from the highway for safely entering and exiting vehicles.

Cars currently parallel park alongside the road on gravel pullouts, and on a paved pullout 100-feet east of the creek. The paved pullout is on the south side of the road and is 250 feet long by 10 feet wide. This pullout can accommodate approximately 9 vehicles (cars and trucks) parked parallel to the road[15]. This pullout is managed by the USFS.

On the west bank of Ibeck Creek, aerial imagery shows signs of informal parallel parking on the gravel on both sides of the road, approximately 170 feet long and 10 feet wide. These two informal pullouts can accommodate a maximum of approximately 12 vehicles to parallel park.

A paved pullout that is buffered from the highway is located a quarter of a mile to the west of Ibeck Creek.

Scope

This project will make improvements to existing parking within 500 feet of Ibeck Creek to provide durable, paved surfaces, and a buffer from the highway to increase safe access to the fishing area. The existing 250-ft long, paved pullout on the east bank of Ibeck Creek will be widened to 50-feet to allow for perpendicular parking. This new perpendicular parking area will accommodate approximately 25 vehicles[16]. See Figure 6 for a planning-level layout.

This project will also pave and widen the informal pullouts on either side of the road on the west bank of Ibeck Creek so that they are each approximately 20-feet wide by 170-feet long. This will accommodate approximately six[17] parallel parking spaces on either side of the road (12 in total) and create a buffer between the parked cars and the highway.

It is assumed that pedestrians will access Ibeck Creek from the side of the creek where their vehicle is parked. Foot-traffic on the bridge is not safe and should be discouraged.

This project will increase parking spaces within 500 feet of Ibeck Creek from 21 to 37; increase the buffer between the parked cars and the highway to increase safety of pedestrians; and provide a more durable, paved surface for the 12 parking spaces on the west bank of Ibeck Creek.

This design will accommodate the development of Project #2 of this masterplan, a multi-use pathway that would be constructed along the south side of the highway between the parked cars and the road.

[15] This calculation allows for four cars (20-ft long) and five trucks (34-ft long).
[16] This calculation assumes 10-ft wide perpendicular parking spaces.
[17] This calculation assumes three cars (20-ft long) and three trucks (34-ft long) on each side of the road.

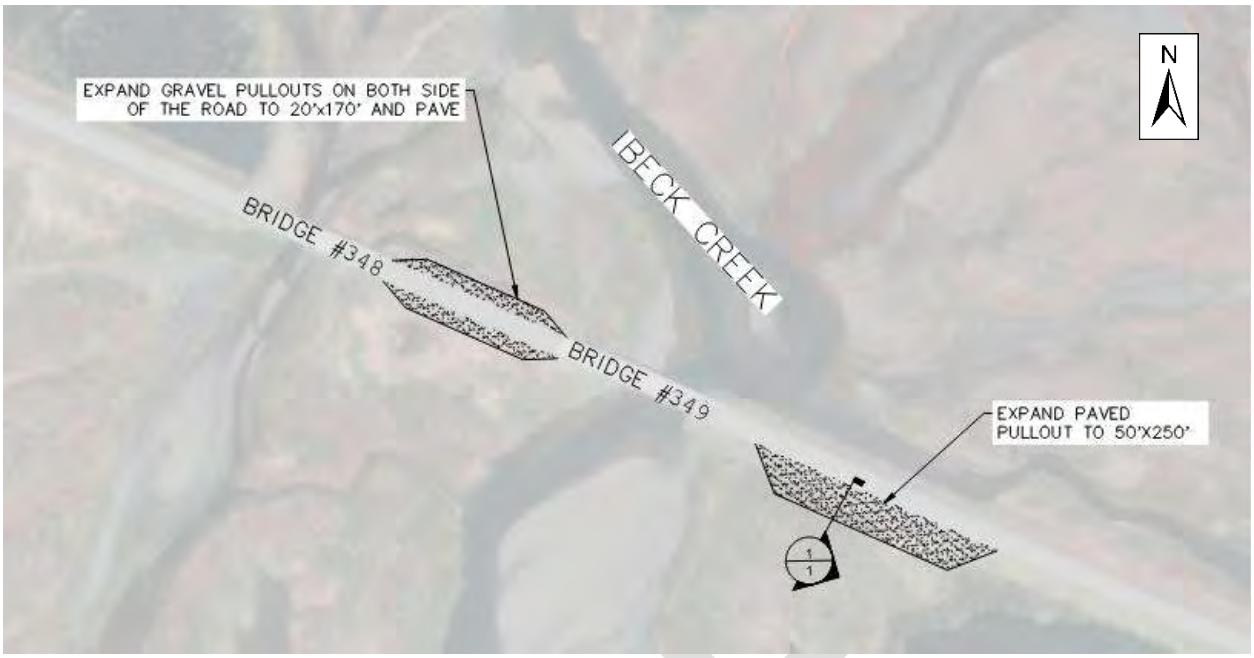


Figure 6. Proposed Parking Improvements at Ibeck Creek, MP 7.5.

Status

This project has not yet begun and is funding dependent.

Planning Estimate

The planning-level cost estimate for this project is $2,500,000. Details are included in Appendix C.

Project #2 Multi-use Pathway to Connect Cordova Ferry Terminal to Merle K (Mudhole) Smith Airport

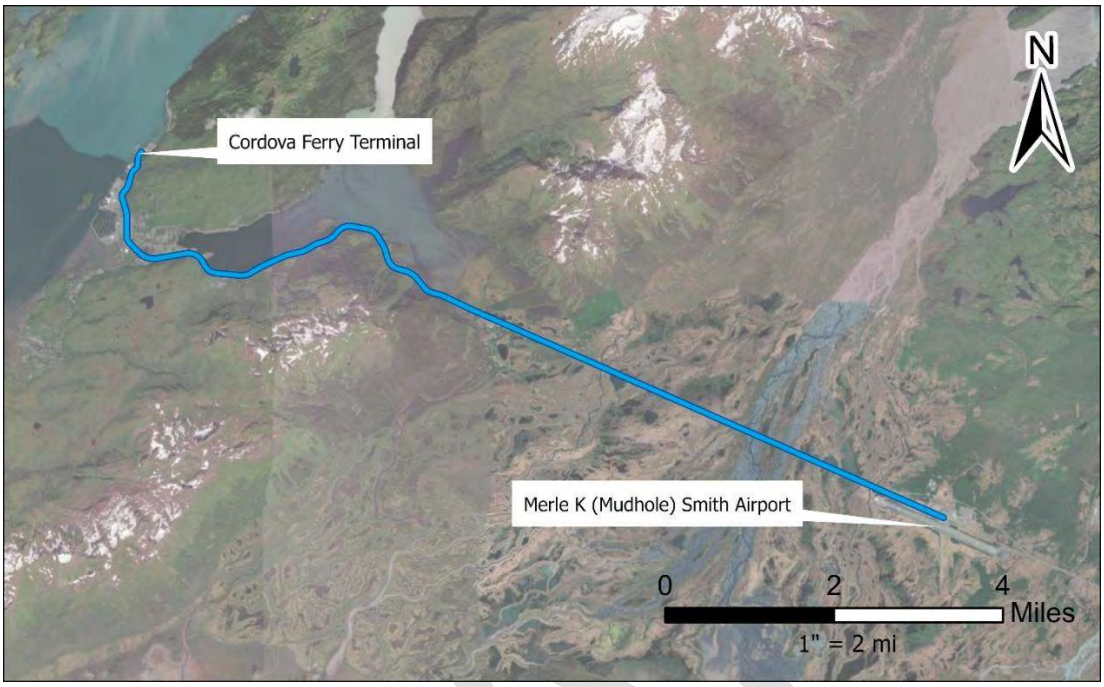


Figure 7. Project #2 Multi-use pathway connecting the Ferry Terminal and the Airport

Location

This project is located along twelve miles of the road corridor from the Cordova Ferry Terminal to the Merle K (Mudhole) Smith Airport at MP 13 of the Copper River Highway.

Scope

The scope of this project is to design and construct a multi-use pathway along the road corridor from the Cordova Ferry Terminal to the Merle K (Mudhole) Smith Airport. This journey takes approximately one hour by bicycle. The multi-use pathway would be 12 miles long and would be located on the south side of the roadway only. This project would increase access to recreational resources and support muti-modal transportation opportunities. It would include 12 separate multi-use bridges. For planning purposes, this masterplan has assumed that the multi-use pathway will be a standard 10-foot width with 2-foot shoulders, and bridges will be 12 feet wide.

Status

This project has not yet begun and is funding dependent. For funding purposes, this project may be better scoped in multiple phases with natural geographic break points (notably rivers and developments), such as from downtown Cordova to MP 5, MP 5 to MP 9, and MP 9 to the Airport.

Planning Estimate

The planning level cost estimate for this project is $72,000,000. Details are included in Appendix C.

Project #3: Replace Bridges NBI #339 and NBI #340 with a New Single Span Bridge.

NBI #339 has been closed since August 2011 due to safety concerns because deep scouring in the river channel had undermined the bridge support piers. To protect the public the road is closed 10 miles west along its alignment at Flag Point MP 27. Subsequent erosion from this river channel has completely washed away the land segment of the highway that had previously connected NBI #339 with NBI #340 (ADOT, 2019).

Location

NBI #339 is located at MP 36.2 and NBI #340 is located at MP 36.6 (Figure 8).

Scope

The scope of this project is to remove and replace existing failed bridges NBI #339 and NBI #340 with one new 30-ft wide bridge, 1,600 feet long.

The bridge will have 14 pile units using two, 4-foot-wide piles driven to 150 feet below ground surface, and two abutments. Spans are composed of 100- precast concrete box girders having dimensions of 3.5 feet wide by 5 feet deep atop concrete pile caps and decked with a concrete surface and guardrails. Banks and abutments would be armored to protect against erosion and geotextile would be used in select areas. NBI #339 and NBI #340 will be demolished.

With the construction of a new bridge over the previous span of NBI #339 and NBI #340, 20 miles of roadway and 70,000 acres of land would be opened up to recreational and industrial use, including possible foot or bike access to the Million Dollar Bridge..

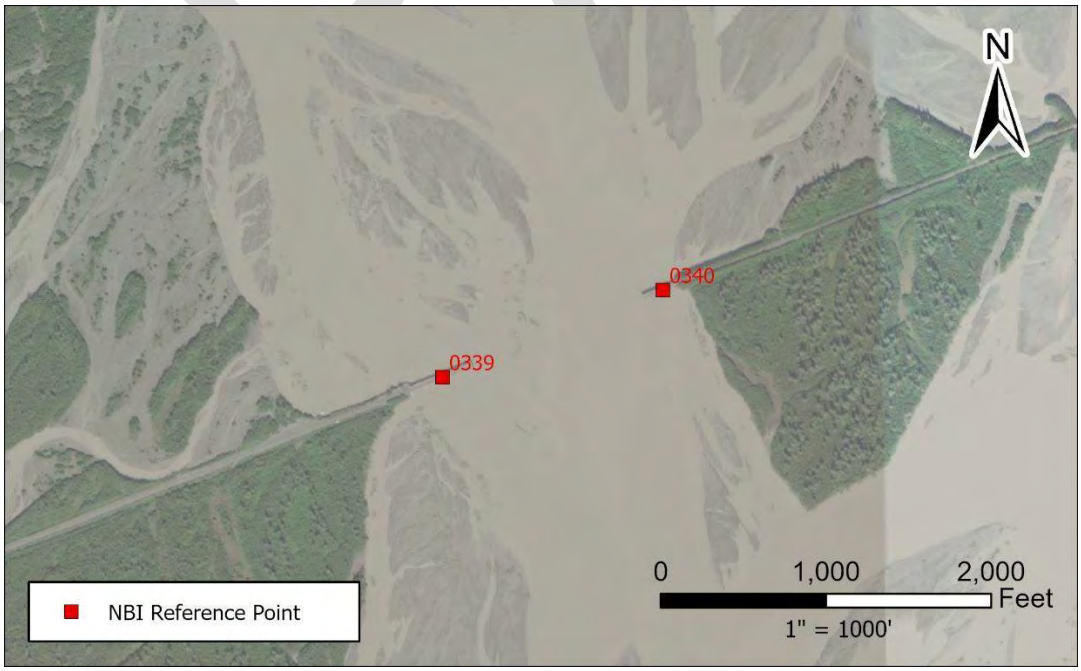


Figure 8. Existing and Proposed Bridges at MP 36.2 to MP 36.6

Status

This project has not yet begun and is funding dependent.

Planning Estimate

The planning-level cost estimate for this project is $65,000,000. Details are included in Appendix C.

Project #4: Reinstate Access to Subsistence and Recreational Areas Past MP 51

This project, identified in the 2019 PEL, includes repairing the Copper River Highway at multiple locations to provide access to recreation and subsistence-use areas beyond MP 51.

Location

Construction and repair will take place at multiple sites in three main areas: MP 36.2 where NBI #339 and #340 need replacement, MP 38 to 45 where the Copper River has compromised the highway, and MP 48 at the Million Dollar Bridge (MDB). The road is currently closed at Flag Point at MP 27 for traffic safety.

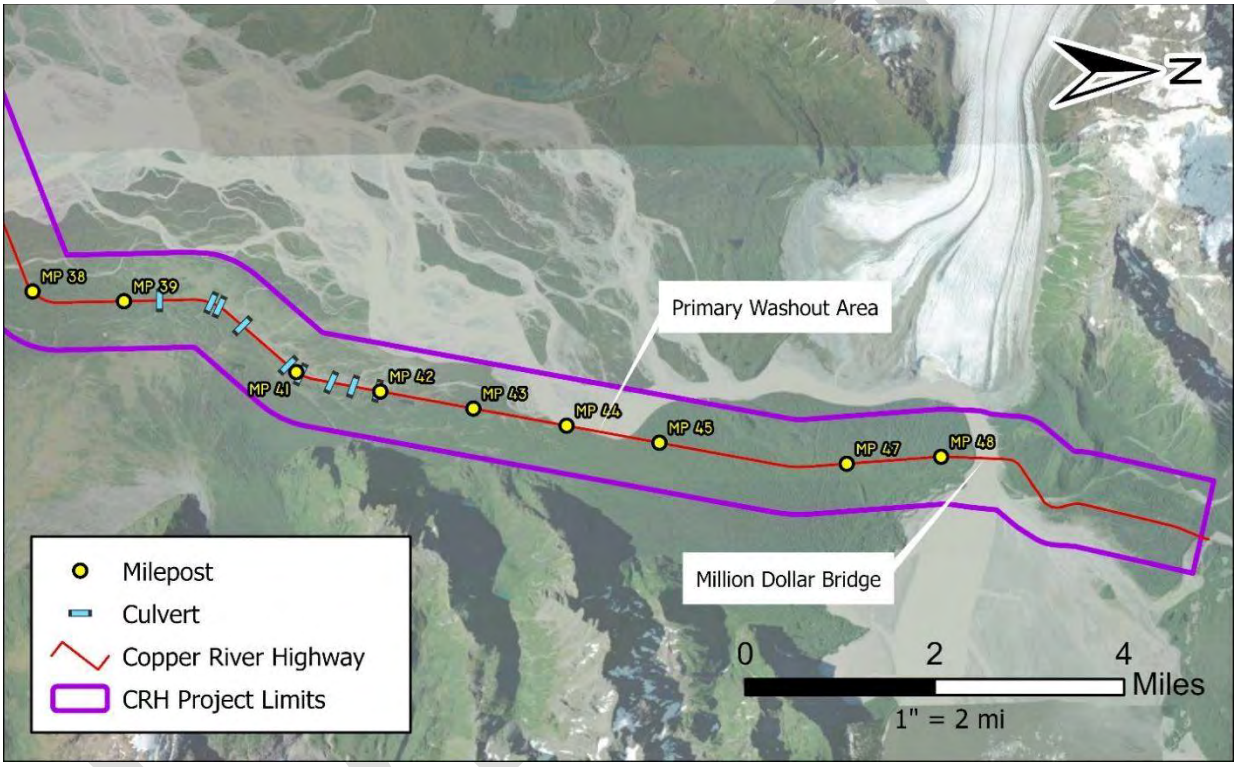


Figure 9. MP 38 to MP 511, Associated Project Features

Scope

This project's scope and cost estimate include replacing NBI #339 and NBI #340 as described in Project #3 of this masterplan.

Between MP 38 and 43 the existing roadway will be raised 5 feet from its current elevation. Between MP 43 and MP 45, the highway will be re-routed away from the river channel, staying within existing DOT&PF ROW wherever possible. The new road will be designed as a 'pioneer road' with a 15-foot-wide driving surface and 2 to 1 side slopes. Class III riprap and geotextile will protect against erosion in compromised areas. Nine culverts will be replaced with 'fish friendly' culverts along this stretch of highway (see the description of 'fish friendly' culverts in Project #5).

The Million Dollar Bridge at MP 48 will be repaired. This work includes replacing Ice Breaker Number 1 and upgrading Ice Breaker Number 2. Piers 1 and 2 will undergo seismic upgrades and their caissons will be grouted. Cracking and spalling of Abutment 1 will be repaired. Damaged chords, laterals, bolts, tie rods, and corbels will be replaced. Lead-based paint on the bridge will be abated, and the bridge will be repainted.

Establishing a driving surface to the MDB would reinstate tourism opportunities that had been lost, such as access to the Childs Glacier Recreation Area and Campground managed by the U.S. Forest Service. Foot-traffic would be able to access land to the north of the MDB for hunting, fishing, and recreation.

Status

This project has not yet begun and is funding dependent. This project could be broken into three distinct phases based on location; the replacement of NBI #339 and #340 at MP 36; road improvements between MP 38 and MP 45; and the renovation of the Million Dollar Bridge at MP 48.

Planning Estimate

The planning-level cost estimate for this project is $325,000,000. Details are included in Appendix C.

Project #5: Replace Failing Culverts and Culverts Inhibiting Fish Passage

Access to healthy spawning and rearing habitats are important for maintaining high fish productivity in salmonoid and other species. Therefore, unimpeded movement through culverts is critical at all life stages to allow access to all habitat types (Copper River Watershed Project, 2023). Poorly designed, installed, maintained, and/or failed culverts can impede fish passage and limit connectivity of habitat, as well as decrease the quality and quantity of fish habitat for salmon and resident species alike.

Fish passage restoration seeks to remove culverts identified as barriers to fish passage and replace them with 'fish friendly', or 'stream simulation' culverts. Fish friendly culverts are constructed so that the channel inside the culvert is virtually indistinguishable to the natural stream channel up and downstream. This allows fish and other aquatic organisms to freely pass up and downstream (Alaska Department of Fish and Game, 2023).

Figure 10. Before and After, fish passage improvement program from the ADF&G website for a 2013 project on Goose Creek at Cameo Road in the Mat-Su Borough.

Location

There are 78 culverts located between MP 0 and MP 51 of the CRH.

Existing Conditions

The existing condition of culverts was determined from data and maps on Alaska Department of Fish and Game (ADF&G)'s Fish Passage Inventory Database , and the CRWP Culvert Mapper 2.0 website. Both datasets were viewed in May and June of 2023.

ADF&G classifies culverts based on ease of fish passage. The decision matrix for these classifications (Level 1/Rapid assessments) was developed in 2001 by a group consisting of representatives from ADF&G, DOT&PF, and the USFS (Scott Graziano, 2023). The assessments are based on physical measurements of the culvert and stream channel and focus on juvenile

salmonid passage (typically based on a 55mm juvenile coho salmon). The culvert is surveyed for type, slope, outfall height, constriction, and other physical parameters. These are summarized in Figure 11.

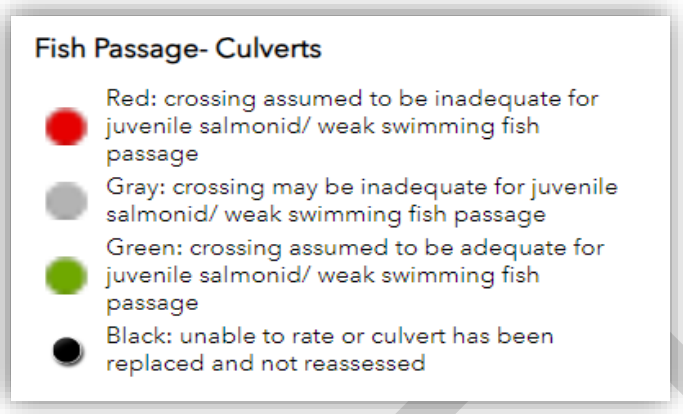


Figure 11. ADF&G Culvert Color Classification Descriptions

Table 3 shows the designations for the 78 culverts along the Copper River Highway.

Table 3. Summary of Fish Passage Designations in Culverts on the CRH

Fish Passage Designation	Number of Culverts
Black	4
Gray	27
Green	12
Red	35
Total	**78**

The CRWP has a different system of prioritizing culverts and assigns numerical values to culvert conditions (constriction, perch, velocity) and ecological conditions (quantity and quality of fish habitat, and fish presence). Table 4 presents the number of culverts along the CRH in each CRWP priority category. The CRWP prioritization number and the ADF&G color classifications for culverts in this region do not necessarily correlate.

Table 4. Summary of CRWP Priority for Replacement of Culverts on the CRH

CRWP Priority Designation	Total Number of Culverts
I[18]	1
II[19]	9
III	2
IV[20]	51
no designation[21]	4
Total	**78**

Scope

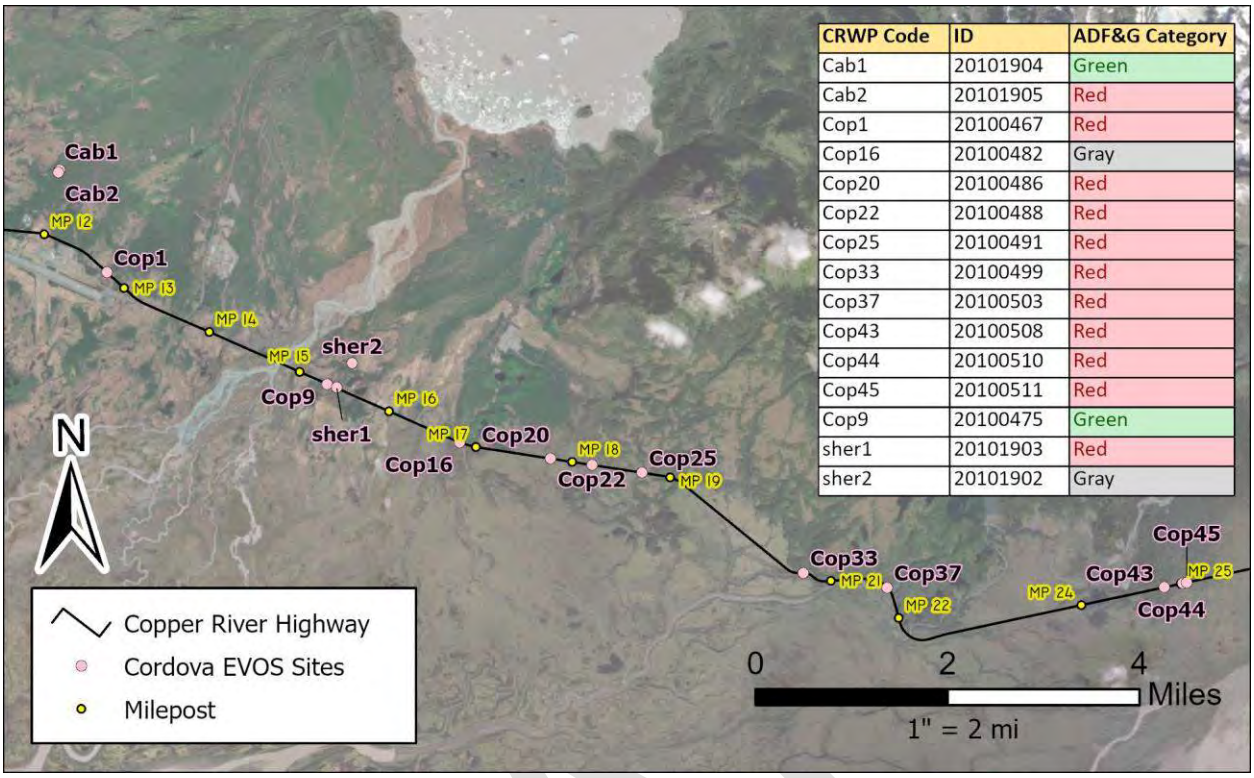
For defining the scope of this project, this masterplan uses the ADF&G color classification to identify culverts needing fish passage restoration in this masterplan. It is assumed that culverts with red and grey classifications are barriers to fish passage and will be replaced with fish friendly culverts. This project will have two phases, Phase I will replace 27 culverts that have a 'red' classification, and Phase II will replace 27 culverts that have a 'grey' classification. In total 54 culverts will be replaced.

This scope assumes replacement of culverts sized to match the stream width stated in the public databases to maximize fish passage. The culverts will be designed and installed with sufficient habitat considerations, and the assumed design and costs will allow for the agency-preferred designs. In total 3,000 feet of culvert will be replaced. Existing culverts to be replaced range in width from 1-ft to 12-ft. New culverts will range in width from less than 10 feet to more than 30 feet wide, depending on the stream width.

Status

Thirteen (13) of the 78 culverts along the CRH from MP 0 to MP 51 have recently been identified as restoration priorities and evaluated for replacement or removal. CRWP received funding from the Exxon Valdez Oil Spill Trustee Council in 2018 to improve fish passage at these sites on the Copper River Delta. The 13 culverts modified by this project are shown in Figure 12.

[18] Two culverts were designated as priority "I" in the CRWP database, but one was already replaced by ADOT in 2022.
[19] 18 culverts were designated as priority "II" in the CRWP database but 9 of these have been replaced since 2020 or are funded and being constructed in summer of 2023.
[20] Six of these culverts are east of the road closure at NBI #339. Fish migration channels are frequently blocked and cause total barriers to fish from these unmaintained culverts.
[21] These four culverts were also designated 'black' by the ADF&G rating system. It is assumed that these culverts do not need replacement.



CRWP Code	ID	ADF&G Category
Cab1	20101904	Green
Cab2	20101905	Red
Cop1	20100467	Red
Cop16	20100482	Gray
Cop20	20100486	Red
Cop22	20100488	Red
Cop25	20100491	Red
Cop33	20100499	Red
Cop37	20100503	Red
Cop43	20100508	Red
Cop44	20100510	Red
Cop45	20100511	Red
Cop9	20100475	Green
sher1	20101903	Red
sher2	20101902	Gray

Figure 12. CRWP Culverts Identified for replacement/removal with EVOSTC funding

The CRWP is currently (2023) working on preliminary investigations with The Eyak Corporation for the following four culverts on the CRH: Cop0, Cop36, Cop9, Cop3. Construction for these four culvert replacements is not funded at the time of publication of this Masterplan.

For funding purposes, further consultation between DOT&PF Hydrologists, ADF&G, and the CRWP to determine which culverts are the highest priority for replacement, and scoping project efforts from that ranking could be beneficial.

Planning Estimate

The planning-level cost estimate for this project is $103,000,000. The cost of each phase of work is shown in Table 5. Details are included in Appendix C. Bid tabs and estimates from three culvert replacement projects done in 2022 and 2023 along the CRH were used in the development of these estimates.

Table 5. Planning Level Cost Estimates for Each Phase of Project #5

Phase	Culverts Replaced	Planning Level Cost Estimate
I	27	$51,000,000
II	27	$52,000,000

Next Steps/Recommendations

The CRH TMP is a guiding document that can be used by DOT&PF, NVE, and the City, as well as agencies and organizations, to advocate for project development and funding.

It is recommended that the SAC continue to meet quarterly and begin to seek funding in coordination with DOT&PF. Additionally, it is recommended that the projects pursued originate west to east along the project corridor to reduce overall costs. Lastly, it is recommended that this master plan is reviewed and updated every five years.

With these sentiments in mind, a proposed concept-level sequence for project funding and implementation is as follows:

1. Begin to seek funding for Projects 1, 2, and 3 (Ibeck Creek, Multi-use pathway, Bridge 339), Potentially combining Projects 1 and 2 together as "Copper River Highway improvements MP 0-13", as proposed Ibeck Creek improvements should be designed with considerations for the proposed multi-use pathway in mind.
2. When funding is secured, develop scope and issue requests for proposals for design and construction services. Select winning proposals and enter contracts. Any of these 3 projects should be feasible to design and construct concurrently depending on available funding and department priorities.
3. Design Improvements for Projects 1 and 2 and begin construction. Begin seeking funding for Project 5 (Culvert Replacements) through accessible portions of highway.
4. As construction continues for Projects 1 and 2, begin construction of Project 3. Develop scope and issue proposal/award for Project 5. Begin seeking funding for Project 4 (Access through MP 51).
5. Complete construction for Projects 1 and 2, Continue construction of Project 3. Begin construction for Project 5. Develop scope and issue proposal/award for Project 4.
6. Complete remaining construction of projects 3 and 5. Proceed with construction of project 4 to completion.

Funding Resources

In addition to providing the planning context for the CRH PEL study, the CRH TMP can support NVE, the City, and DOT&PF and other agencies and organizations as they seek funding for infrastructure projects within the study area. The following tables include potential – but not all – funding opportunities available to improve surface transportation in the CRH corridor.

Formula Funding

Table 6. Potential Funding Sources – Apportioned or Allocated Funds

Fund	Purpose	Eligible Recipients
Alaska Federal Lands Access Program	Supports improving facilities and access to, through, or within Federal or Tribal lands	Apportioned to States
Bridge Formula Program (see Community Bridge Investment Program, below)	Supports bridge replacement, rehabilitation, preservation, protection, and construction.	Apportioned to States
Highway Safety Improvement Program (HSIP)	Supports projects to reduce traffic fatalities and serious injuries on public roads.	Apportioned to States
National Highway Freight Program	Supports the efficient movement of freight.	Apportioned to States
National Highway Performance Program	Supports condition and performance of the National Highway System, including supporting activities to increase resiliency related to extreme weather and natural disaster.	Apportioned to States
Surface Transportation Block Grant (STBG)	Supports projects that preserve and improve conditions and performance on Federal-aid highways and bridges.	Apportioned to States
Tribal Transportation Program	Supports safe and adequate transportation and public road access.	Allocated to Tribes

Competitive Grants

Table 7. Potential Funding Sources – Competitive Grants

Fund	Purpose	Eligible Recipients
Bridge Investment Program	Focuses on existing bridges in poor condition	States, local governments, Tribes, Federal agencies
Denali Commission Transportation Program Grants	Supports basic road improvement projects that connect rural communities and the state highway system as well as provide enhancements to rural economic development.	Non-profits, local governments, Tribes, Tribal organizations, State

National Culvert Removal, Replacement, and Restoration Grants	Supports improving or restoring fish passage for anadromous fish.	Tribes, states, local governments
National Scenic Byways Program	Supports facility improvements, safety upgrades, and interpretive information for scenic byways.	States and Tribes
Nationally Significant Federal Lands and Tribal Projects Program (NSFLTP)	Supports construction-related funding for projects within, adjacent to, or accessing Federal and Tribal lands.	
Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Program	Supports strengthening surface transportation to be more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters.	States, local governments, Tribes
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants	Supports capital improvements for surface transportation that has a significant local or regional impact.	Tribes, states, local governments
Rural Surface Transportation Grant Program	Supports projects to improve and expand surface infrastructure to increase connectivity and improve the safety and reliability of moving people and freight.	State, local governments, Tribes
Tribal High Priority Projects Program	Supports completion of highest priority projects for facilities listed on the National Tribal Transportation Facility Inventory list.	Federally recognized tribes or governmental subdivision
Tribal Transportation Program Bridge Program	Supports improvement of Tribally owned and non-Tribally owned bridges in poor condition that have been identified as a Tribal transportation facility	Federally recognized Tribes
Tribal Transportation Safety Fund	Addresses transportation safety issues identified by Tribes	Federally recognized Tribes
U.S. Economic Development Administration Public Works Program	Supports distressed communities to revitalize, expand, and upgrade physical infrastructure.	Non-profits, local governments, Tribes, Tribal organizations, State

State of Alaska

Table 8. Potential Funding Sources - State of Alaska Funds

Fund	Purpose	Eligible Recipients
Community Bridge Investment Program	Supports replacing, repairing, or protecting NBI bridges or culverts	Local governments
Department of Commerce Community and Economic Development (DCCED) Community Development Block Grants (CDBG)	Supports planning and project grants to address issues detrimental to health and safety of community residents and reduce costs of services.	Local governments
State of Alaska Capital and Operating Budgets	Supports DOT&PF operations and special projects	State Agencies
Transportation Alternatives Program	Supports smaller-scale transportation projects including bike and pedestrian facilities, turnouts and viewing areas, environmental mitigation related to habitat connectivity, and recreational trails	Set aside under STBG Program

Appendix A: Planning Resources

Agency	Plan	Purpose
DOT&PF	Copper River Highway Planning and Environmental Linkage Study (2019)	A planning document that supports environmental review requirements focused on alternatives to reconstruct, repair, and replace the damaged transportation infrastructure along a segment of the CRH, from approximately MP 27 through approximate MP 51. Projects considered within the CRH PEL include restoring access across NBI #339, reestablishing access between MP 44 and 45, repairing the icebreaker at Pier 1 of the Million Dollar Bridge, replacing culverts, and expanding and developing material sites.
DOT&PF	Statewide Long Range Transportation Plan Update – draft (2022)	A long-range plan that explores highways, aviation, transit, rail, marine, bicycle, and non-motorized transportation and freight needs statewide through 2050.
DOT&PF	Prince William Sound Transportation Plan (2001)	A multi-modal plan addressing ferry, surface transportation, ports and harbors, and aviation improvements, focused on year-round mobility within the region, including improvements to the ferry system to link communities within PWS and the rest of the state.
DOT&PF	Cordova Merle K. "Mudhole" Smith Airport Master Plan	A site-specific plan focused on short-term and long-range improvements to runway and other facilities within the airport's existing footprint.
City of Cordova	City of Cordova Comprehensive Plan (2019)	A land use plan including land use policies, housing, and economic development and ways to maintain the area's natural and community values. The Comp Plan recognized transportation issues such as limited access, lack of pedestrian and bike connectivity, and aging road infrastructure. Key goals included securing reliable and affordable air and ferry service, maintaining a safe and functional transportation network, and providing improved pedestrian and bike facilities.
City of Cordova	City of Cordova Historic Buildings Survey Plan and Historic Properties Roster (2020)	An inventory of historic properties based on historic themes including industry, commerce/trade, recreation and culture, transportation, and architecture. Trails, roads, objects (i.e. boats), and archaeological sites were not reviewed as part of the survey, and a recommendation was made to prepare a separate survey and inventory for the CRH.

PWS Economic Development District	Prince William Sound Comprehensive Economic Development Strategy (2021-2025)	A strategic plan focused on economic development, including 16 priority areas related to infrastructure, workforce development, and diversifying the economy.
Alaska Department of Natural Resources	Prince William Sound Area Plan (1988)	A land use plan for state-owned lands, including uplands and submerged lands. It determines land-use classifications, land disposal locations, and other guidelines for use of state land. It makes sure there will be reasonable access across state lands for resource development.
National Park Service	Alaska Federal Lands Long Range Transportation Plan	A multi-agency LRTP for Federal lands in Alaska which identifies and prioritizes transportation infrastructure and systems, focusing on connectivity of public access to and through Federal lands.
USFS	Chugach National Forest Land Management Plan (2020)	A land management plan that provides guidance for projects and decision-making.
NVE	Long Range Transportation Plan (2022)	A plan identifying the Tribe's high-priority transportation needs including access to areas for housing, subsistence, recreation, and oil spill response.

Appendix B: Public Involvement

The Cordova Times

January 2, 2020

AFFIDAVIT OF PUBLICATION

ADVERTISER: Randi Bloom
State of Alaska DOT&PF Northern Region
2301 Peger Rd
Fairbanks, AK 99709

ADS: PUBLIC MEETING: Copper River Highway Planning and Environmental Linkage Study

United States of America, State of Alaska, Third Division, Before Me, The undersigned, a notary public this day personally appeared, Vivian Kennedy, being duty sworn, according to law, says that she is the Administrative Assistant of The Cordova Times.

Published in Cordova, Alaska that the advertisement, of which the annexed is true copy, was published in said publication on December 6 and that the rate charged thereon is not in excess of the rate charged to private individuals.

STAMP

DENNA R. FRANCISCHETTI
NOTARY PUBLIC
My Comm. Expires Sep 29 2023
STATE OF ALASKA

Vivian Kennedy
Administrative Assistant
The Cordova Times

Subscribed and sworn to me on
January 2, 2020

The Cordova Times by Native Village of Eyak | P.O. Box 1388 Cordova, AK 99574 | 907.424.2236

THE CUE MARK

'The Irishman': Scorsese, defaced

BY ZACHARY SNOWDON SMITH
zsmith@thecordovatimes.com

NEW RELEASE

"The Irishman" (R)

★★★☆☆

Dir. Martin Scorsese. 209 minutes.

Frank "The Irishman" Sheeran (Robert De Niro) is a man of few words. As a mob hitman and bodyguard to union boss Jimmy Hoffa (Al Pacino), Sheeran has an insider's perspective on the brutality and double-dealing that shaped America throughout the 20th century.

To portray a story stretching from the 1940s to the 2000s, Martin Scorsese used digital de-aging techniques to artificially shift De Niro and other actors from youth to senility. Most scenes in "The Irishman" feature at least one character whose face has been almost totally digitally replaced. Of course, computer-generated imagery can be used without dispelling a film's enchantment: few would notice, much less object to, the computer-generated hills and mountains seen throughout "Mad Max: Fury Road," or the computer-generated blood seeping from Daniel Craig's wounds in "The Girl With the Dragon Tattoo." However, being carried through an otherwise intimate and gritty drama like "The Irishman" by characters with artificial faces produces many jarring moments. Even in some wide shots, De Niro's digital face leaps out of the frame.

No one complains about Scorsese's abundant continuity errors and other technical imperfections because the reality he constructs for us is so immediate and so vivid, full of humor that makes us grin and cruelty that makes us wince. There are few directors whose work tends to be less compatible with "Avengers"-style digital shenanigans. Watching "The Irishman" is a bit like eating a meal laced with sand. Probably, minus the sand, it would have been an excellent meal, but it's difficult to know for sure.

"The Irishman" is available to stream on Netflix.

FROM THE VAULT: 1981

"Galaxy of Terror" (R)

★★★☆☆

Dir. Bruce D. Clark. 81 minutes.

A spaceship is dispatched to answer a distress call on a distant planet. There, the crew finds a sinister alien pyramid populated by blood-drinking squids, rhinoceros-sized worms and other creepy-crawlies.

Recently remastered — for some reason — "Galaxy of Terror" occupies a strange middle ground between the atmospheric sci-fi of "The Thing" and "Dune" and the rubber-monster melodramas of the '50s. Its drably industrial spaceship interiors look like something out of a TV show, and dialogue consists mostly of bellowed exposition.

On the other hand, its interstellar setting is hauntingly bleak, portrayed convincingly through gloomy matte paintings and miniatures. Several soon-to-be-greats worked on the film, including James Cameron of "Titanic" and "Avatar" fame and Robert Englund, better known as Freddy Krueger. The raw talent of Cameron and others contributes to an unsettling atmosphere that makes "Galaxy of Terror" more involving than other schlocky killer-alien movies.

Also setting "Galaxy of Terror" apart is its sheer audacity: in one scene, a female crewmember is, shall we say, physically assaulted by a giant maggot. The filmmakers were forced to make numerous careful readjustments to the "maggot scene" in order to avoid an X rating. "Galaxy of Terror" doesn't aim for the stars, but it does make an impression.

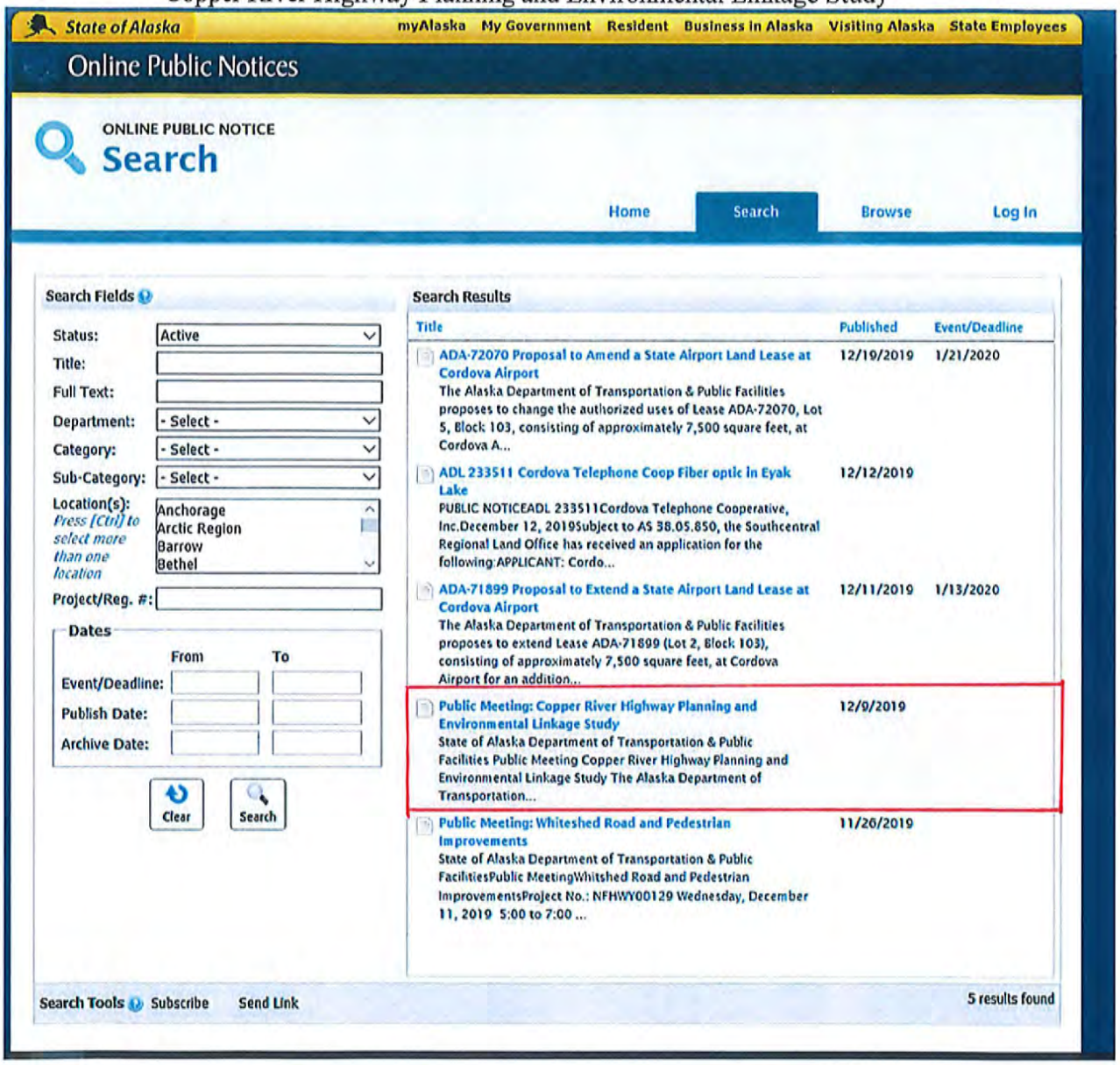
"Galaxy of Terror" is available to stream from Amazon Prime, Google Play, Vudu and YouTube.

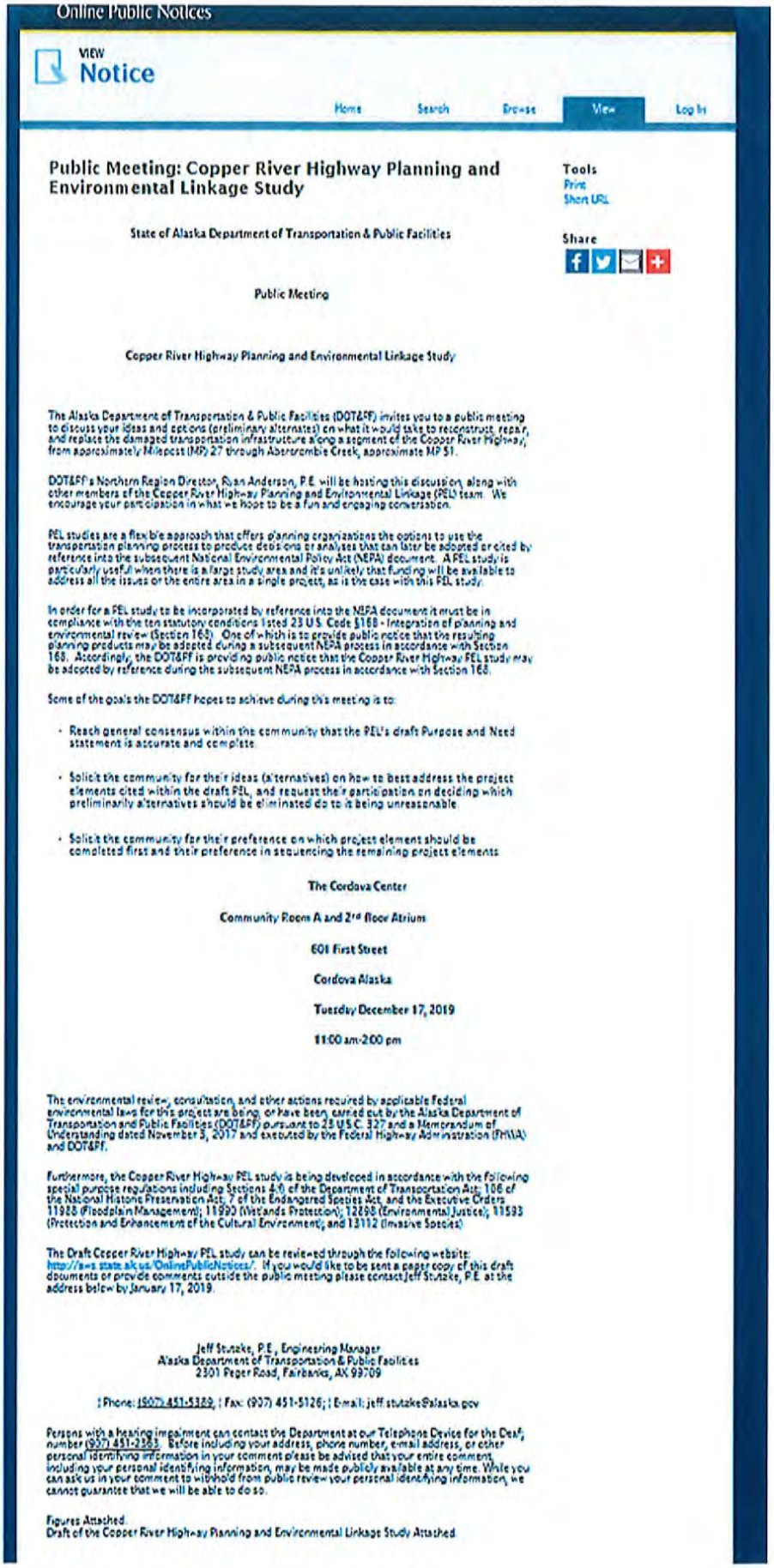
Top 10 Streaming

1. Rambo: Last Blood (R)
2. Ad Astra (PG-13)
3. Joan the Maid 1: The Battles (PG)
4. Abominable (PG)
5. Freaks (NR)
6. Edie (NR)
7. Daniel Isn't Real (NR)
8. Linda Ronstadt: The Sound of My Voice (PG-13)
9. Marriage Story (R)
10. A Million Little Pieces (R)

Robert De Niro in "The Irishman."

State of Alaska Online Pubic Notices-Public Meeting Announcement
Copper River Highway Planning and Environmental Linkage Study





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Public Meeting: Copper River Highway Planning and Environmental Linkage Study

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State of Alaska Department of Transportation & Public Facilities

Public Meeting

Copper River Highway Planning and Environmental Linkage Study

The Alaska Department of Transportation & Public Facilities (DOT&PF) invites you to a public meeting to discuss your ideas and options (preliminary alternates) on what it would take to reconstruct, repair, and replace the damaged transportation infrastructure along a segment of the Copper River Highway, from approximately Milepost (MP) 27 through Abercrombie Creek, approximate MP 51.

DOT&PF's Northern Region Director, Ryan Anderson, P.E. will be hosting this discussion, along with other members of the Copper River Highway Planning and Environmental Linkage (PEL) team. We encourage your participation in what we hope to be a fun and engaging conversation.

PEL studies are a flexible approach that offers planning organizations the options to use the transportation planning process to produce decisions or analyses that can later be adopted or cited by reference into the subsequent National Environmental Policy Act (NEPA) document. A PEL study is particularly useful when there is a large study area and it's unlikely that funding will be available to address all the issues or the entire area in a single project, as is the case with this PEL study.

In order for a PEL study to be incorporated by reference into the NEPA document it must be in compliance with the ten statutory conditions listed 23 U.S. Code §168 - Integration of planning and environmental review (Section 168). One of which is to provide public notice that the resulting planning products may be adopted during a subsequent NEPA process in accordance with Section 168. Accordingly, the DOT&PF is providing public notice that the Copper River Highway PEL study may be adopted by reference during the subsequent NEPA process in accordance with Section 168.

Some of the goals the DOT&PF hopes to achieve during this meeting is to:

- Reach general consensus within the community that the PEL's draft Purpose and Need statement is accurate and complete.
- Solicit the community for their ideas (alternatives) on how to best address the project elements cited within the draft PEL, and request their participation on deciding which preliminarily alternatives should be eliminated due to it being unreasonable.
- Solicit the community for their preference on which project element should be completed first and their preference in sequencing the remaining project elements.

The Cordova Center

Community Room A and 2nd floor Atrium

601 First Street

Cordova Alaska

Tuesday December 17, 2019

11:00 am-2:00 pm

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by the Alaska Department of Transportation and Public Facilities (DOT&PF) pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated November 3, 2017 and executed by the Federal Highway Administration (FHWA) and DOT&PF.

Furthermore, the Copper River Highway PEL study is being developed in accordance with the following special purpose regulations including Section 4.0 of the Department of Transportation Act; 106 of the National Historic Preservation Act; 7 of the Endangered Species Act, and the Executive Orders 11988 (Floodplain Management); 11990 (Wetlands Protection); 12898 (Environmental Justice); 11593 (Protection and Enhancement of the Cultural Environment); and 13112 (Invasive Species).

The Draft Copper River Highway PEL study can be reviewed through the following website: http://aws.state.ak.us/OnlinePublicNotices/. If you would like to be sent a paper copy of this draft documents or provide comments outside the public meeting please contact Jeff Stutzke, P.E. at the address below by January 17, 2019.

Jeff Stutzke, P.E., Engineering Manager
Alaska Department of Transportation & Public Facilities
2301 Peger Road, Fairbanks, AK 99709

| Phone: (907) 451-5389 | Fax: (907) 451-5126 | E-mail: jeff.stutzke@alaska.gov

Persons with a hearing impairment can contact the Department at our Telephone Device for the Deaf, number (907) 451-2363. Before including your address, phone number, e-mail address, or other personal identifying information in your comment please be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

Figures Attached.
Draft of the Copper River Highway Planning and Environmental Linkage Study Attached.

*This information is **voluntary**. Its purpose is to ensure fair and equal representation by the public in all projects and programs administered by the Alaska Department of Transportation and Public Facilities.

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PUBLIC MEETING

SIGN-IN SHEET

Copper River Highway Planning and Environmental Linkage Study **Program Number: NFHWY00414** **Date: December 17, 2019**

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Jack Swenson	Jack-Cherrie66@hotmail.com	491-1424	M	
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NAME/ COMPANY/ AFFILIATION (PLEASE PRINT)	MAILING ADDRESS and *EMAIL	PHONE	*GENDER (M/F)	*RACE OPTIONAL
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NAME/ COMPANY/ AFFILIATION (PLEASE PRINT)	MAILING ADDRESS and *EMAIL	PHONE	*GENDER (M/F)	*RACE OPTIONAL
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Kristi Rubio	P.O. Box 883 voyageable@aol.com	424 8100	F	
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Loren Banks	Box 2431 Cordova AK	424 7792	M	

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Jim Casement	Box 2352 Cordova, AK 99574	907 424 7363	M	
DAN LOGAN	BOX 2683 CORDOVA		M	

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Notes/Comments Taken during the Public Meeting Held in Cordova, AK on December 17, 2019

(Addison) There is about $2 million dollars that is pending to the Native Village of Eyak working in partnership with DOT to try to work on some of the washouts, but they are waiting to hear from you all and the purpose and need statement.

Sydney- Commerce is a huge thing, without access diminished revenue.
(28 min)

Stormy Haught, ADF&G- We run the Miles Sonar Camp, after the loss of the 339 bridge we were able to adapt it was a fairly reasonable spot to get across with a jet boat. So you could ferry goods as long as there was that connectivity with the other side, it seemed pretty reasonable. weir, 44 mile washout, helicopter deployment, really increased the cost of running the project and limited the ability to improve that project . It is the main tool for managing the Copper River salmon fisheries.

Really increased the cost.

Sonar is run by commercial but is used to manage all Copper River fisheries, subsistence, …

Four wheelers and In the past there were a couple of individuals with twelve passenger vans and trailers and we could pile everything on, and in years when there was still snow we would haul a snow machine across and use trailers. But it really provided support. Really much safer. This last season we could not have the access that we had before. Obviously we could run jet boats up from the bridge but there are lots of conditions where that is not very fun and not safe and not a good way to get really expensive equipment up to the site. So it has really limited us. This was reasonable, all we had to do was get across the river here a(339) and now pretty scuzzy and pretty challenging.

A lot of benefit to having that connectivity past the washout At 339, and not just to fish and game. A number of vendors would run people across the ferry and they would bike up to the camp ground or do tours up to the campground. There is a lot of value to have that connectivity at that washout.

To move that ROW (at mile 44-45) of the road, it has been done before. The CRH used to cross Clear Creek twice, when it was still clear. It took out three to four miles of the railroad alignment. I do not know if you are aware of that. I think that was in the seventies when that happened.
One of the big things I think of other than economic impacts is all the investment that has been made out there. All the investment that has been made to that campground, the federal money that they raised that span that made the CBW national news- that the federal government was fixing this bridge that went nowhere. Sao when I think of why, I think of all the investment that we have already spent

The other why is you can talk about getting across the washout, some of use are shuttling across there but remember before the washout at 339, there was in excess of 10,000 people a year visiting the campground at Childs glacier. Now in our highest season between all operators, there is not even a thousand. If you cut it down the little people that cannot make it out there any

more. The people that have money are the ones that can make it out there I have gone from $75 a head to $275 because have to go all the way by boat. The grocery store clerks and the people living pay check to paycheck cannot go out to what used to be Cordova's number one recreation area.

We built two cabins up there, one on Nels Miller Slough, up the Brennerd River on Steamboat Lake. It just makes it a lot harder to access those areas, unless you have a big tired supercub. We navigated that river, at 52 mile and then ten more miles of road get us above Abercrombie and we could launch up there, and then it cut out all the dangers of can opener rocks and all that stuff in Miles Lake. Plus the rapids. Now you got to start way down at 36 and you got rapids below Childs Glacier that makes it a pretty dangerous trip to get up and down there with a boat. And it takes a lot of fuel, I used to make trips to Chitina and so I am pretty familiar what it takes to get up and down that river.

I have a question about the feasibility of doing this. Water is, that river is really powerful and anything that you do, there is no guarantee it will stick around or is your building possibility it preventing erosion. Hard case to make these kinds of investments and no guarantee that the river isn't going to.

Answer the why, Teresa Tanner USFS, you address in your purpose and need, that the system is tough on infrastructure. But with the changing weather patterns we are experiencing an increase in high water events, increased threat to any existing infrastructure and more likelihood of what is there is going to wash out, we went from 220,000 cfs as an average high, now this July we had 350,000 cfs which is about as much discharge as the Yukon and it has about twelve times the size of drainage. So speaking to, in your purpose and need, the increased threat to the infrastructure because of these increased frequencies and levels of high water events, and to public safety to some extent.

Liza with the Copper River project, I would also like to mention that there is a number of culverts that cross that are no longer being used, that are no longer contributing to fish passage, and so if we decide that we do not want to build a bridge, to work on connectivity, they are there and we will have to deal with that whether we remove them or restore them or improve them, that is going to be a need for fisheries.

If we build this is it going to last, is the department going to build a hydrologic predictive model to see if this is going to work.
(45 min)
Can we access the model? There is a website that has all the data from the last fifty years, on the hydrology at the million dollar bridge. Which is available online.
https://waterdata.usgs.gov/ak/nwis/uv/?site_no=15214000&agency_cd=USGS

I am curious about the timing of all this conversation, didn't the bridge a 339 go out in 2011,

I think it was condemned before that, so it seems odd timing that now to be finally talking about this, since we are in a state budget crises. So is all this revised conversation about this the result of the washout this summer, or because it seems like it is everything snowballing. The longer that time goes on, we are rapidly approaching the ten year mark, since this first

Walking across the bridge this past summer and looking at the icebreaker and the cracks and wondering, what happens if this bridge falls into the river. This is a huge structure. Thinking about ways that it might erode the river, and potential fish passages, one of the big whys, is for you guys just to saty off the huge disaster. So I guess my question is, where is the line? At what point would DOT go out and do an inspection and say that this thing has got to go. Before it falls in. Do you guys have a clear criteria? That would allow you to identify that point. Are there emergency funds to use?
(52 minutes)
I want to go back to Charlottes comment that everything is snowballing right now, but for the EYAK Corporation, it has been an ongoing conversation since day one especially after the transfer, the bulk of our land is past the bridge. And so that is a huge resource for us. Something we have been having an ongoing dialogue with the state. And anyone else that would listen. Maybe it just seems like it is all happening right now, but that's not the case.

Once this planning and environment linkage study gets done, will you be able to take the document and go to various funding agencies and seek funding, there is not one agency that is going to get the funding for the alternatives so getting this document done is really important.

I think the biggest thing that cranked this up was the icebreaker moving out of the way, because that is when I sent the most letters.

It seems to me that the State was doing a lot of maintenance, lot of preventative maintenance on the CRH, then they got to the point where they put in the duck bill, that is what I call them, that makes the water swirl around so it won't wash the road out. What do you call those things? (guide banks) You put one at the Copper River to protect the bridge there and then we started seeing problems before the bridge went out, at Clear Creek. Looked like the State of Alaska had the attitude that will just let it wash out and that way we can get funds to fix it. Fix it right. But then when the bridge went out, it never did get fixed at Clear Creek. You got a culvert sticking straight up in the air, and it is a fish critical area, for fish passing through there. It just seems to me that somebody dropped the ball. You know. Hindsight is 20/20. It just seems like the attitude was just let it washout. And it had to do with funding I think, I don't know. About the first bridge, when it first happened people said we have to replace that bridge, what do you mean you have to replace it, it is still there. Oh yeah but those pilings don't have the bearing they used to have. Every one of those pilings in that river the bearing would go up and down depending on the velocity of the water so why would that bridge be shot. That is what my question is.

What you are asking of the group here is what the ultimate goal is. For the community, in general. Based upon all the stakeholders that we have in Cordova, what I am hearing is to meet the end result of continuing on with village land, continue on with the stream repairs but the first step is to fix the span a 339. Or create an alternate route to get beyond 36 mile. Other than removing everything, it seems like the obvious first step is to fix the span a 339.

At a million dollars a hundred feet, you have a lot of money to remove the bridges to get rid of, economics does not play well. . You can't get rid of the Million Dollar Bridge for a million dollars a hundred feet.

The way I see it is that the Million Dollar Bridge needs to be fixed immediately, we may not have the time to fix all these other bridges, we need to get to fix that road section and get there

in the winter time, and put something in front of that pier before it is too late. We can't wait another ten years.

It is just a fact of life that in Aug of 2016, the iceberg that hit the icebreaker that sheared the icebreaker off, Had the icebreaker been in the position it is in now, and it had hit the pier, there is a good chance that the Million Dollar Bridge WOULD BE SITTIN IN THE water now. That sheared off, that icebreaker is 52 feet 32 feet wide and 24 feet tall, solid concrete and it sheared it smooth. With the bottom of the river. The iceberg that hit it was twenty times the size of the icebreaker. And there is no rebar in the pier. And this is what happened to bridge 339, they knew it was scouring out, they knew it, and I think it was where the state sat back and said let's let it go and then we can get more money to fix it, or we got other priorities and they kinda let it go. Well when the million dollar bridge goes in the water, I might lose my house and my business they might lose their sonar site, the forest service might lose their campground, I know darn well that the Eyak Corporation is going to lose, excuse me, a heck of a lot of land. The bridge is taller than the river is deep there.

The fish will be able to swim around it, but it will collect debris and dam up the river and wash out around the banks.

My guess is that with the amount of ice there, if it comes down you will create a giant dam there and the river will deflect around it, and eat away at the banks and there is over a hundred years of photos of those banks that show the same banks that are there now. They have not changed at all on both sides of the river. I think that is one of the reasons that the bridge is there. The fish will find away to get around it but you are going to totally change what is there. Completely change it. It may deflect and go overland and go over beside the mountain. Who knows, I am just saying that that iceberg hit the icebreaker and sheared it off. If that icebreaker had been out of the way and that same iceberg hit the pier the million dollar bridge would be in the water.
(106 minutes)

(Stutzke) I would tend to agree with that. When that icebreaker moved, its function was no longer there so it is at risk definitely has elevated. Those are the kind of things that scary as they might be, is what we are going to put in this document and go from there. This is sort of the first step.

I miss getting out there, I agree it was one of Cordova's main tourist attractions but we been patching that road for decades. We used to have a saying that Mother Nature laughs last. We will continue to patch that road for decades. Imagine the amount of money, if you put it all together I don't think anybody would be willing to spend. We talk about why, we talk about birders, research, bridges, roads and we just lost our number one ability to get people and goods to this town. We won't have tourism, birders and campground use because there is no way for people to get into town. And we are spending this kind of money. We are going to do it forever. Until we finally say we better pull out the bridge. And that is what I would suggest. I hate to go that way, but that amount of money is absurd. People don't even want to pay for needs of the people of the state.

We pay up front or we pay all along. I mean the economic impact of removing that entire road system from the Copper River. Not even close to. You are going to pay all at once or, I don't know if the fisheries and the economic impact that the fisheries have on this state, and to this

community I think you would be hard pressed to try to say we are not willing to (a) remove what we already put in place or (b) fix it.

In light of what I just heard said, what is the worst case scenario, I didn't know one of the icebreakers had been sheared off, you talk about priorities, road versus .., we start with the bridge, so it is not feasible to fix the bridge cause mother nature is going to go under the bridge, what is the worst case scenario if something did happen and it did collapse, obviously and what if something were to happen in the middle and is there some sort of apocalyptic, if the middle span fell, and backwash all the way to, I mean what is the effect of that? Worst case.

What would we do to the water flow, would we dam it up in some fashion?

Given this is a PEL and not a NEPA, what I think you would want to recommend an action. The point on the no action, are you going to do a cost benefit analysis on it. If you have a no action would mean that you would have to go in and pull everything out.

So how much to take out the Million Dollar Bridge?

There are past studies that I have read that the analysis for 2003-2004 the take it out scenario was guessed in excess of $200 million.

What if it falls I the water? They guesstimated $300 million if it falls in the water. It was something like ten or twenty D-10 L to pull it out of the water.
So if it falls in the water, you got to get it out. Or you got to fix it to keep it from falling in the water.

Or be proactive and remover it.
Do you have to fix the road to get out there to do it or can you get out there over the ice? With cranes and heavy equipment to pull that out of the water. You got to fix the road to get out there to get it out of the river.

My brother in law worked for Wilson Construction and I believe it was Gene Widden, when they lifted that span, and they went across that river one morning and my brother in law was in a backhoe right above the bridge, and Gene fooled him in his D-8, and he got right out in the middle and broke through. And he dropped about three or four feet, down to another layer of ice. And the backhoe had gone across there fine. So he had to go back out there with the backhoe and pull the dozer out and luckily there is layers of ice.

Another note on what I think is really significant, it is on the Register of National Historic Places, it is a great example of Pennsylvania Truss bridge and I just think that we should be proud of it, I would really hate to see it fall in the water. And even if it does have to be removed, we would have to think of some way to preserve a piece of it, here in town somehow.
The other thing that you have to think about is if the pier one does collapse, and only span one and two fall you still gotta worry about span three and four for later. That makes it an additional step. Because then you have even a harder time accessing it. So it is kind of a snowballing thing here. I hope this isn't another thing here that we discuss to death for another ten years and then it falls in just like bridge 339 and we will be sitting here in 2029 saying hey, we got a plan.

I got a question on 339, on some of the assumptions. It's been there for a fair number of winters, that channel can neck down to a fairly narrow channel, and all the way on the far east side and leave the 339 span stranded, and you can drive out beyond it so I think there is the potential for work to have access along the side of that bridge and potentially work with a crane. I think if you look at a winter option you could substantially reduce the cost . When you are talking about the bridge not being wide enough to let a crane of a certain size, in a lot of winters that water level is going up and you can access a lot of that. Having spent time up there in the winter, there are options in the winter that would not be available in the summer, with high flow going through there.

Up until five years ago we had twenty time a winter, winds over 100 mph, in the last five years we haven't had a hundred mile an hour wind out there. I don't think we have had a sixty mile an hour wind out there in the last five years. That high water, 350000 feet per second, that was the third highest ever recorded. And that was the first super high water during the summer time that was not as the result of a rain storm. It was totally because of heat and so those were unique things. This year though we are seeing high winds up there, meaning 30, 40 miles an hour . So you might get windows in there when you can do lots of construction in the winter time. You don't have the 40 times a hundred miles an hour winds.

There was a guy come down working on the approaches, at 39 mile, he was from Sutton and he was renting my duplex and I said you better come down and take a look at this before you make a plan to work in the middle of the winter. In the Copper River, and he says I've been to the Arctic I been making ice roads, I worked all over Alaska in the harshest conditions in the world. He ended up going bankrupt, he got out there and he told me it's a piece of cake and the next thing I know was trying to get a dozer over here from Valdez because the road filled up with silt behind his grader, anyhow it cause him to go broke. He was from Sutton, an elderly guy and his wife. But I told him even before he got started there you are out of your mind, but he was bull headed and he ended up having to finish the job in the summer.

Do you guys remember 25 or 30 years ago one of the bridges beyond 339 added a couple hundred feet to each side of it. They were out there in the winter, remember they had dozers out there and channelized the river right down under the existing bridge and they were able to get there an added several hundred feet to the bridge.

They repaired the Million Dollar Bridge with those oscillator pilings and they drilled four at least in winter and I think those were six footers (NO,, they are eight footers) eight footers, which is what is proposed on those and I think that is the best plan, use those eight footers and keep the distance , put those pilings in, in the winter. Then you could come back in the summer and leap frog along on top of those things. Makes sense.

When they fixed the Million Dollar Bridge, the road was still good and you could driver there. Yes, they drove every day from town at Davis Bacon wages.

You could do that with 339, you could drive there every day, oscillate those pilings in, you build that bridge and then and then you are on your way. Once that bridge is in, you got it. You armor the road and you are good to go.

But in 2003, 2004 and 2005 we lifted the Million Dollar Bridge, and during that time we were fifty miles out of town and every time we had to come to town we would caravan behind the plow, that is not a critical thing. We had thousands and thousands of gallons of fuel stored out there not a half a mile from the river, not a quarter of a mile. So that seemed to work out ok, meaning that the technology is there. But maybe you work with the engineering schools and get some creative things like don't try to do it all at once. Try to be creative and try to put in the pilings this year and bid out putting in the bridge spans next year. Different things like that, instead of trying to make one contractor rich all at once.

Do you have visualization of these riprap platforms? That you mention in alternative #3. I was just wondering, this is now owned by the state (the Million Dollar Bridge) and it is the state's responsibility, but I look at they had a hurricane down in New Orleans, and it flooded the town and all the town stuff was owned by individuals but the federal government came in there and fixed the dike the federal government seemed to pay for everything and we are sitting here looking at the same kind of disaster coming down, so s to speak, even though the states got a permanent fund, maybe since this is water related maybe there is something we can get funded by the corps of engineers because this is a disaster absolutely a disaster waiting to happen,

The lead paint on there is twenty percent lead, you have that in your little report there, twenty percent lead. We got a twenty million dollar fishery and everybody is going to love knowing that across the nation that there is a chance of lead being in those fish. I am saying be creative about this funding because I think this is going to come down before we get this figured out.
There is other funding sources that are but there, Corp of Engineers pre disaster FEMA, a lot of opportunities. First thing is getting this document and getting recommendations, getting project

(1:36 minutes)
If it falls in you are talking 200 to 300 million dollars. And you got to fix the bridge at 337 to spend that 200 million.

How much of your budget that goes to say, Parks Highway, Richardson Highway, of that is federal money. (90%)
This is no longer the same (as other highways) because this is no longer a federal road.
Where this comes from is that when we were applying for the BUILD Grant, this is no longer a federal road until Trump changed it to where local communities could get BUILD Grant money. That is kinda what I am talking about. Because of its designation it is no longer a federal road, that you aren't eligible for a lot of funds because it is no longer a federal road.

Looking at the end point, when you are done with this PEL are you going into engineering design? And continue it? Or is it going to sit for a while? The reason I ask is that it seems to be the only way that this will be done, is with a major federal initiative. Infrastructure initiative. Seems like in the past, it comes out and the caveat is it has to be shovel ready and a PEL analysis wouldn't be shovel ready. But you need to have it to final design. At that point it would be available for a shovel ready congressional initiative.

(Addison) The money and the federalization of the PEL, that I mentioned earlier, what I think would be really great we have $2 million and how that should be spent. It was originally proposed for the mile 44 washout, but from this discussion it might be spent differently. The federal grant is open to changing the scope. So this is an opportunity for you guys to make a

statement, and we can take that to Western Federal Lands, but there is $2 million earmarked pending this meeting. Western Federal Lands is just waiting for comments from this meeting today to allocate the funds for this grant.

How about, just for bouncing it around, you got $2.8 million for the washout at 44, you could get a pretty nice pioneer road going around that, but why don't we make a DE minimum road because I think a 4wheeler trail would help me, going to help you, will help the village and will help a lot of us, I am talking a 4wheeler trail, not a road, and then spend the rest of that, maybe $2.6 million because it only costs $100,000 to make the trail, and spend it trying to get it to shovel ready. Trying to get everything designed and looked at in advance. Maybe do the piling first, I went through the BUILD Grant with bridge 339, and there are creative ways to do these things and take that money and spend it to where we are trying to get to the main issues, as opposed to fixing something that benefits a few as opposed to something that benefits a whole slug of people. If we look at this from the bigger picture.

One of the things that is not addressed in this is the fish culverts. The life span of what is existing and then the capacity for passing water with the changes in migration from west to east across that delta. One of the things to talk about in the construction is are you going to have another blowout. The existing culverts, there are a couple of them that are and I think that needs spoken to in the PEL, and also part of the analysis is what you address first. If you actually do get money to get some construction on the ground.

With regards to a pioneer road going around 44 mile washout, I think there needs to be a lot of dialogue between the state and the EYAK Corporation because right now I think that is one they would have a lot of heartburn over. Without having some sort of trading land or compensation something around that aspect of it. I can't speak for the corporation myself but that is my take of the temperature.

Jeff- We can't do it alone, we need this collaboration.

The integrity of fish passage, looking at sequencing, looking at whether the road will have another blowout and not even exists in a year.

Public Meeting Comment Sheet

Copper River Highway Planning and Environmental Linkage Study
Program Number: NFHWY00414

The Cordova Center – Community Room A and 2nd Floor Atrium
December 17, 2019

We welcome your input and ideas, thank you for taking the time to be involved.

COMMENTS:

Do you agree that the Purpose and Need statement, presented in the Draft Copper River Highway Planning and Environmental Linkage (PEL) Study, dated December 17, 2019, is accurate and complete?
☑ Yes ☐ No
If not, what revisions to the Purpose and Need statement do you suggest? _____

Do you think the boundary of the Draft PEL Study Area should be revised?
☐ Yes ☑ No
If yes, what revisions to the boundary do you suggest? _____

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Reestablish Access Across NBI #339 and its Associated Washout*", which of the eight preliminary alternative is your preference at this time? (1) 2 3 4 5 6 7 8

Do you have other suggested alternatives that the DOT&PF should consider in order to reestablish access across NBI #339 and its associated washout? _____

Please continue comments on the other side→

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Reconstruct or Realign the CRH at the MP 44-45 Washout*", which of the five preliminary alternative is your preference at this time?

(1) 2 3 4 5

Do you have other suggested alternatives that the DOT&PF should consider in order to reestablish access across the MP 44-45 washout? _____

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Repair the Million Dollar Bridge*", which of the nine preliminary alternative is your preference at this time?

(1) 2 3 4 5 6 7 8 9

Do you have other suggested alternatives that the DOT&PF should consider in order to repair the Million Dollar Bridge? _____

If funding was to become available, which of the project elements, listed in the Draft PEL, would you like to see constructed first and what is your preference in sequencing the remaining project elements; i.e. reestablish access across NBI #339 and its associated washout, reestablish access across the MP 44-45 washout, or repair the Million Dollar Bridge? _____

#1 Bridge 339

#2 MP 44-45

#3 Million Dollar Bridge

Do you have other suggested project elements or preliminarily alternatives that the DOT&PF should consider? _____

Name: GENE WOODEN

Mailing Address*: PO Box 2203 Cordova, AK

E-Mail Address*: _____

Telephone Number: 907 253 3137

*Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal information from public review, we cannot guarantee that we will be able to do so.

For more information or to submit your comments at a later date (please no later than January 17, 2020), contact Jeff Stutzke, P.E., Engineering Manager; Alaska Department of Transportation & Public Facilities; 2301 Peger Road, Fairbanks, AK, 99709; Phone: (907) 451-5389; Fax: (907) 451-5126, or Email: jeff.stutzke@alaska.gov. For text telephone (TDD), please call (907) 451-2363

Public Meeting Comment Sheet

Copper River Highway Planning and Environmental Linkage Study
Program Number: NFHWY00414

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December 17, 2019

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COMMENTS:

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☑ **Yes** ☐ **No**
If not, what revisions to the Purpose and Need statement do you suggest? _____

_____

_____

_____

_____

_____

_____

Do you think the boundary of the Draft PEL Study Area should be revised?
☐ **Yes** ☒ **No**
If yes, what revisions to the boundary do you suggest? _____

_____

_____

_____

_____

_____

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Reestablish Access Across NBI #339 and its Associated Washout*", which of the eight preliminary alternative is your preference at this time? (1) 2 3 4 5 6 7 8

Do you have other suggested alternatives that the DOT&PF should consider in order to reestablish access across NBI #339 and its associated washout? _____

_____

_____

_____

_____

Please continue comments on the other side→

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Reconstruct or Realign the CRH at the MP 44-45 Washout*", which of the five preliminary alternative is your preference at this time?

1 (2) 3 4 5

Do you have other suggested alternatives that the DOT&PF should consider in order to reestablish access across the MP 44-45 washout?

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Repair the Million Dollar Bridge*", which of the nine preliminary alternative is your preference at this time?

(1) 2 3 4 5 6 7 8 9

Do you have other suggested alternatives that the DOT&PF should consider in order to repair the Million Dollar Bridge?

I THINK THE BRIDGE REPAIR IS MOST IMPORTANT IF IT CAN BE DONE BEFORE THE OTHER TWO

If funding was to become available, which of the project elements, listed in the Draft PEL, would you like to see constructed first and what is your preference in sequencing the remaining project elements; i.e. reestablish access across NBI #339 and its associated washout, reestablish access across the MP 44-45 washout, or repair the Million Dollar Bridge?

Do you have other suggested project elements or preliminarily alternatives that the DOT&PF should consider?

Name: TOM MCGAHN

Mailing Address*: BX 1624 CORDOVA

E-Mail Address*: TOMJ MCGAHN @ G. MAIL . COM

Telephone Number: 424-3826

*Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal information from public review, we cannot guarantee that we will be able to do so.

For more information or to submit your comments at a later date (please no later than January 17, 2020), contact Jeff Stutzke, P.E., Engineering Manager; Alaska Department of Transportation & Public Facilities; 2301 Peger Road, Fairbanks, AK, 99709; Phone: (907) 451-5389; Fax: (907) 451-5126, or Email: jeff.stutzke@alaska.gov. For text telephone (TDD), please call (907) 451-2363

Public Meeting Comment Sheet

Copper River Highway Planning and Environmental Linkage Study
Program Number: NFHWY00414

The Cordova Center – Community Room A and 2nd Floor Atrium
December 17, 2019

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COMMENTS:

Do you agree that the Purpose and Need statement, presented in the Draft Copper River Highway Planning and Environmental Linkage (PEL) Study, dated December 17, 2019, is accurate and complete?
☐ Yes ☒ No
If not, what revisions to the Purpose and Need statement do you suggest?
- Access to public/private land that is difficult to access without Highway
- Access to public land for low-income people. Access now requires equipment or chartering with someone.
- Transportation for future resource development?

Do you think the boundary of the Draft PEL Study Area should be revised?
☐ Yes ☒ No
If yes, what revisions to the boundary do you suggest?

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Reestablish Access Across NBI #339 and its Associated Washout*", which of the eight preliminary alternative is your preference at this time? (1) 2 3 4 5 6 7 8

Do you have other suggested alternatives that the DOT&PF should consider in order to reestablish access across NBI #339 and its associated washout? No, I feel like Alternative 1 and 8 are the only viable options.

Please continue comments on the other side→

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Reconstruct or Realign the CRH at the MP 44-45 Washout*", which of the five preliminary alternative is your preference at this time?

1 2 (3) 4 5

Do you have other suggested alternatives that the DOT&PF should consider in order to reestablish access across the MP 44-45 washout?

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Repair the Million Dollar Bridge*", which of the nine preliminary alternative is your preference at this time?

(1) 2 3 4 5 6 7 8 9

Do you have other suggested alternatives that the DOT&PF should consider in order to repair the Million Dollar Bridge?

If funding was to become available, which of the project elements, listed in the Draft PEL, would you like to see constructed first and what is your preference in sequencing the remaining project elements; i.e. reestablish access across NBI #339 and its associated washout, reestablish access across the MP 44-45 washout, or repair the Million Dollar Bridge? Reestablish access across #339 and work your way out to end of road. Get design complete so that if infrastructure funding is available, project can begin.

Do you have other suggested project elements or preliminarily alternatives that the DOT&PF should consider?

Name: Leif Staving

Mailing Address*: PO Box 1963 Cordova, AK 99574

E-Mail Address*: ljstaving@gmail.com

Telephone Number: 907-424-7543

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Public Meeting Comment Sheet

Copper River Highway Planning and Environmental Linkage Study
Program Number: NFHWY00414

The Cordova Center – Community Room A and 2nd Floor Atrium
December 17, 2019

We welcome your input and ideas, thank you for taking the time to be involved.

COMMENTS:

Do you agree that the Purpose and Need statement, presented in the Draft Copper River Highway Planning and Environmental Linkage (PEL) Study, dated December 17, 2019, is accurate and complete?
☐ Yes ☒ No
If not, what revisions to the Purpose and Need statement do you suggest?

Address maintaining / replacing infrastructure in terms of climate forcing – beyond historical averages, we are seeing & can expect to see greater amplitude, in high flow events and channel migration.

Do you think the boundary of the Draft PEL Study Area should be revised?
☐ Yes ☒ No
If yes, what revisions to the boundary do you suggest?

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Reestablish Access Across NBI #339 and its Associated Washout*", which of the eight preliminary alternative is your preference at this time? 1 2 3 ~~4~~ ~~5~~ ~~6~~ (7) → ??? ~~8~~ X = oppose

Do you have other suggested alternatives that the DOT&PF should consider in order to reestablish access across NBI #339 and its associated washout?

Where is #7 addressed?? not on pp 10-12 or anywhere else.
#3 - Consider winter work such that such closely spaced spans is not required
ADD #9 for bridge removals without replacement

Please continue comments on the other side→

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Reconstruct or Realign the CRH at the MP 44-45 Washout*", which of the five preliminary alternative is your preference at this time?

X 2 3 4 5

Do you have other suggested alternatives that the DOT&PF should consider in order to reestablish access across the MP 44-45 washout?

Unless culvert replacements are also addressed, I am opposed to road realignment/reconstruction

Within the Draft PEL and under the heading of "*Preliminary Alternatives to Repair the Million Dollar Bridge*", which of the nine preliminary alternative is your preference at this time?

1 2 3 4 5 6 7 8 9

Do you have other suggested alternatives that the DOT&PF should consider in order to repair the Million Dollar Bridge?

Add #10 - remove without replacement

If funding was to become available, which of the project elements, listed in the Draft PEL, would you like to see constructed first and what is your preference in sequencing the remaining project elements; i.e. reestablish access across NBI #339 and its associated washout, reestablish access across the MP 44-45 washout, or repair the Million Dollar Bridge?

Do you have other suggested project elements or preliminarily alternatives that the DOT&PF should consider?

Add Alternatives for culverts: Remove w/out replacement; Alt 1: convey 100 yr flood event Culverts: address the condition of the culverts separate from fish passage → real concern for culvert integrity at a couple of stream crossings, i.e. culvert "blowing out"

Name:

Mailing Address*:

E-Mail Address*: [redacted], Cordova, AK resident

Telephone Number:

19 Dec 2019

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Chugach
ALASKA CORPORATION

January 17, 2020

Jeff Stutzke, P.E., Engineering Manager

Alaska Department of Transportation & Public Facilities
2301 Peger Road, Fairbanks, AK 99709

Submitted Via Email

RE: Copper River Highway Planning and Environmental Linkage Study

Dear Mr. Stutzke:

Chugach Alaska Corporation (Chugach) is the Alaska Native Regional Corporation for the Chugach Region established pursuant to the Alaska Native Claims Settlement Act of 1971, as amended, 43 U.S.C. § 1601, et seq. ("ANCSA"). Chugach owns or has valid selection rights to over 928,000 acres of full fee estate and subsurface estate within the Chugach Region. Included are approximately 183,000 acres of land beyond Copper River Highway Bridge 339.

For projects within the scope of the PEL study, Chugach supports the following alternatives:

- Preliminary Alternatives to Reestablish Access Across NBI #339 and its Associated Washout
  - Alternative 1
- Preliminary Alternatives to Reconstruct or Realign the CRH at the MP 44-45 Washout
  - Alternative 1
- Preliminary Alternatives to Repair the Million Dollar Bridge
  - Alternative 1
- Preliminary Alternatives to Repair the Culverts
  - Alternative 1
- Preliminary Alternatives to Expand or Develop New Materials Sites
  - Chugach assures the State that our material pits and potential quarry sites will be available to provide materials needed for this project.
- Preliminary Alternatives for the Logistics Required to Get Heavy Equipment, Service Equipment, Construction Materials, and Personnel to the Respective Project Sites
  - Alternative 2

The Copper River Highway and Bridge Reconstruction project is very important to Chugach to access its lands beyond Bridge 339. The lands Chugach owns beyond this PEL Study are valuable in subsistence resources, minerals and world class recreation opportunities. We believe this project will help provide access to our lands and help fulfill the promise of utilization of ANCSA lands for the Corporation and also access to U.S. Forest Service lands.

Chugach Alaska Corporation • 3800 Centerpoint Dr., Suite 1200, Anchorage, AK 99503 • T: 907.563.8866 • F: 907.563.8402

Chugach fully supports repairing bridges, roads and culverts to regain access to our lands. We appreciate State allowing Chugach the opportunity to provide input on this essential infrastructure study.

Sincerely,

David Phillips
Director, Lands

Chugach Alaska Corporation • 3800 Centerpoint Dr., Suite 1200, Anchorage, AK 99503 • T: 907.563.8866 • F: 907.563.8402

CITY OF CORDOVA

To Whom It May Concern,

The Planning Commission would like to thank the Alaska Department of Transportation and Public Facilities for holding a public meeting in Cordova concerning the draft Copper River Highway Planning and Environmental Linkage Study. It is important that such planning documents are produced with public participation from those that are affected.

Following the public meeting, the Planning Commission discussed the PEL at our Regular Meeting. While not unanimous, there was concern about the highway falling into further disrepair. The City of Cordova recently adopted a Comprehensive Plan which mentions the highway explicitly under the Quality of Life section. Under the strategy to "Expand and improve Cordova's indoor and outdoor recreation opportunities," there is an action item to "Advocate for restoring access to Child's Glacier and the Million Dollar Bridge.

Thanks again for your time,

Tom McGann
Planning Commission Chair

602 Railroad Avenue P.O. Box 1210 Cordova, Alaska 99574 Telephone (907) 424-6200 Fax (907) 424-6000

The Eyak Corporation
615 E. 82nd Ave, Suite 300
Anchorage, AK 99518
Phone: (907) 334-6971
Fax: (907) 334-6973

January 17, 2020

Jeff Stutzke, P.E., Engineering Manager
Alaska Department of Transportation & Public Facilities
2301 Peger Road, Fairbanks, AK 99709

VIA ELECTRONIC MAIL

Re: Draft Copper River Highway PEL study

Dear Mr. Stutzke:

The Eyak Corporation (Eyak) is the Alaska Native Village Corporation for the Eastern Prince William Sound, Cordova and Copper River area established pursuant to the Alaska Native Claims Settlement Act. We have 570 shareholders, with approximately 100 living in Cordova. We submit the following comments to the Alaska Department of Transportation & Public Facilities Draft Copper River Highway PEL study.

Eyak owns or has valid selection rights to over 90,000 acres of surface estate within the boundaries of the Chugach National Forest. As a for profit corporation, we have an obligation to our shareholders to pursue economic opportunities on those lands. Access to our land relies on reconstruction, repair, and replacement to transportation infrastructure along a segment of the Copper River Highway (CRH), from approximately Milepost (MP) 27 through approximate MP 51.

For projects within the scope of the PEL study, The Eyak Corporation supports the following alternatives:

- Preliminary Alternatives to Reestablish Access Across NBI #339 and its Associated Washout
  - Alternative 1
- Preliminary Alternatives to Reconstruct or Realign the CRH at the MP 44-45 Washout
  - Alternative 1
- Preliminary Alternatives to Repair the Million Dollar Bridge
  - Alternative 1
- Preliminary Alternatives to Repair the Culverts
  - Alternative 1
- Preliminary Alternatives to Expand or Develop New Materials Sites

- The Eyak Corporation feels strongly that the preferred alternative is to use the material pits owned by TEC (surface) and the Chugach Alaska Corporation (subsurface)

- Preliminary Alternatives for the Logistics Required to Get Heavy Equipment, Service Equipment, Construction Materials, and Personnel to the Respective Project Sites
  - Alternative 2
  - As a point of clarification, The Eyak Corporation owns the property on which the Childs Glacier lodge is located.

The PEL study states on page 13 (paragraph 5). "In September 2019, Red Plains Professional, Inc. (Red Plains), under contract by TEC, estimated the construction cost of Alternative 2 would be $2,547,000." The sentence should read, "In September 2019, Red Plains Professional, Inc. (Red Plains), under contract by Native Village of Eyak, estimated the construction cost of Alternative 2 would be $2,547,000."

In addition, the legal name of the regional Alaska Native Corporation is Chugach Alaska Corporation.

The Eyak Corporation fully supports repairing bridges, roads and culverts to regain access to our lands. Thank you for the opportunity to comment.

Sincerely,
The Eyak Corporation

Rod Worl	Nancy C. Barnes	Martin Parsons
Chief Executive Officer	President	Board Chairman

From: Stutzke, Jeff P (DOT)
To: Kirsten Nelson
Cc: Kulash, William M (DOT)
Subject: RE: Copper River Highway
Date: Tuesday, December 31, 2019 2:18:49 PM
Attachments: PublicMeetingCmtSheet_CRH Draft PEL study 12-17-19.pdf

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Ms. Nelson,
Thank you for your comments and we appreciate your interest in the Copper River Highway Planning and Environmental Linkage(PEL) study. The DOT&PF recognizes the significance of the Copper River fishery throughout its entire watershed and agree that the residents of Chitina and surrounding areas are stakeholders, as this fishery is extremely important to subsistence use and for commerce throughout the region and beyond.

At this time, the DOT&PF is not planning on holding another public meeting similar to the one that was held in Cordova, although that could change upon expressed interest from upstream communities. DOT&PF's goals for the Cordova meeting were, through the public involvement process, to:

- Reach general consensus within the community that the PEL's draft Purpose and Need statement is accurate and complete.
- Solicit the community for their ideas (alternatives) on how to best address the project elements cited within the Draft PEL, and request their participation on deciding which preliminarily alternatives presented in this document should be eliminated do to it being unreasonable.
- Solicit the community for their preference on which project element should be completed first and their preference in sequencing the remaining project elements.

Once the above objectives have been met the DOT&PF will be able to focus on the specifics of what's being proposed, in terms of engineering designs, constructability, costs, and associated environmental impacts that may occur if they are constructed. As part of this process, the DOT&PF will be initiating consultation with interested state, local, tribal, and federal agencies, as well as the public, to ensure there would not be an adverse impact to the human or natural environment. As such, there will more opportunities for public involvement and this later involvement might be more productive to upstream communities because we can focus our discussions on what we are actually considering versus furthering discussions on alternatives that should be eliminated do to them being unreasonable.

With this in mind, we request your comments on the Draft Copper River Highway PEL study if you have the time. The Draft PEL study and its associated figures can be accessed through the following link: https://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=196387 .

I've also attached a public comment sheet which was provided at the Cordova meeting, it was intended to make the PEL comment process a little easier because there is so much information to go through.

Thanks again for your help,

Jeff Stutzke, P.E.
907-451-5389

-----Original Message-----
From: Kirsten Nelson <kirsten_nelson@hotmail.com>
Sent: Sunday, December 29, 2019 9:37 AM
To: Stutzke, Jeff P (DOT) <jeff.stutzke@alaska.gov>
Subject: Copper River Highway

Dear Mr. Stutzke,

I read with interest that there had been a public meeting regarding the Copper River Highway. The meeting was held in Cordova. Will you be holding a similar meeting in Chitina? Obviously, residents of Chitina and surrounding areas

are stakeholders in this discussion as well.

I look forward to your reply. My best wishes as this project moves forward.

Sincerely,

Kirsten Nelson
PO Box 18
Chitina, Alaska 99566
(907)414-1688
Mile 11.3 McCarthy Road

From: Stutzke, Jeff P (DOT)
To: Marie, Megan E (DFG); Kulash, William M (DOT)
Cc: Haught, Stormy B (DFG); Botz, Jeremy C (DFG); Baumer, Jay A (DFG); O"Doherty, Gillian M (DFG); Adelfio, Luca A -FS; Tanner, Theresa - FS
Subject: RE: DOT&PF is hosting a public meeting in Cordova on December 17, 2019, to discuss the CRH PEL study
Date: Monday, December 23, 2019 12:04:35 PM

Thank you Megan. Meeting went well I think, had a good turn-out. Many good comments and ideas were discussed during the meeting that will be brought into the document. Glad that Stormy was there as he had some great input. We will be going thru all the comments thru the Jan. 17th deadline, we have quite a few. Thank you for the updated info and comments, much appreciated. Some of the information in the draft was based on what was available thru this first go-round. Further collaboration with ADF&G and other agencies will take place once we have gone thru all the comments and include follow-up documentation.... right now scheduled in February....before the final PEL is completed. Discussion for the removal or blocking of culverts before the 339 washout and will be included in the culvert alternatives. I will definitely contact you and all included here and keep you updated or if there are questions. Likewise, if any additional thoughts, comments or questions, please do not hesitate to send to me or Bill. Thanks again Megan and have a great Christmas everybody.

-Jeff

From: Marie, Megan E (DFG) <megan.marie@alaska.gov>
Sent: Friday, December 20, 2019 4:00 PM
To: Kulash, William M (DOT) <william.kulash@alaska.gov>; Stutzke, Jeff P (DOT) <jeff.stutzke@alaska.gov>
Cc: Haught, Stormy B (DFG) <stormy.haught@alaska.gov>; Botz, Jeremy C (DFG) <jeremy.botz@alaska.gov>; Baumer, Jay A (DFG) <jay.baumer@alaska.gov>; O'Doherty, Gillian M (DFG) <gillian.odoherty@alaska.gov>; Adelfio, Luca A -FS <luca.adelfio@usda.gov>; Tanner, Theresa - FS <theresa.tanner@usda.gov>
Subject: RE: DOT&PF is hosting a public meeting in Cordova on December 17, 2019, to discuss the CRH PEL study

Bill and Jeff,

I hope the public meeting was informative and look forward to hearing about the feedback from the community on the alternatives proposed in the PEL. I finally was able to review the whole document this week and wanted to provide some comments on the section on the culverts and a note for the Affected Environment analysis.

Culvert Repair Alternatives
There is a large file on the past proposals to improve the section between MP38-43 with a grade raise and the plan was to block most of the culverts along this section. I've attached an email string from 2011 that clarifies our position on fish passage in this section during this last go round with ADOT&PF before the road washed out. I can dig up older memos, etc. but it didn't seem necessary at this time.

The only alternatives listed in the PEL are to replace the undersized and damaged culverts with new structures or to leave everything as-is. We'd like to see a third alternative added that blocks most of the culverts as agreed upon before the washout at bridge #339. Given the dynamic nature of flows in this section, it is unlikely that structures providing fish passage at important migratory times of the year would be a feasible option for replacement at most crossing sites in this section of road and ADF&G would object to the installation of new crossing structures that do not pass fish at most flows (current condition).

Culvert Inventory/Assessment

The PEL cites culvert condition and fish passage assessments from ADF&G surveys completed in 2002. It is likely that many of the culverts categorized as "grey" in 2002 are now "red" given the lack of maintenance in this section and the changes in flow since 2002. We suggest using more recent survey information (USFS visual survey from 2017 attached) in any final environmental assessments to more accurately represent the current conditions.

Affected Environment

The Biological Resources section includes a description of fish habitat in the project area and potentially affected by project alternatives. Clear Creek is excluded from this list, but runs parallel to the highway in the MP 43-38 area, and habitat in this system is currently affected by flow from the highway culverts. Changes to the drainage patterns or improvements/road work in this area would likely impact Clear Creek (not necessarily in a negative way), and as such it should be included in the Affected Environment section. Clear Creek is listed in the AWC as providing habitat for coho, pink, sockeye, and Chinook salmon as week as cutthroat trout, steelhead trout, and Dolly Varden.

I look forward to hearing more about efforts to address the highway condition from MP 36-51. Please contact me with any questions about the comments above or to discuss project alternatives.

Thanks,

Megan Marie
Alaska Department of Fish & Game
Habitat Section
Office: (907) 267-2446

<'(((>< <'(((>< <'(((><
www.adfg.alaska.gov/habitat

From: Kulash, William M (DOT) <william.kulash@alaska.gov>
Sent: Thursday, December 12, 2019 2:21 PM
To: Haught, Stormy B (DFG) <stormy.haught@alaska.gov>
Cc: Marie, Megan E (DFG) <megan.marie@alaska.gov>; Stutzke, Jeff P (DOT) <jeff.stutzke@alaska.gov>
Subject: DOT&PF is hosting a public meeting in Cordova on December 17, 2019, to discuss the CRH PEL study

Hello Stormy,
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Attached is the Draft Copper River Highway PEL study that the DOT&PF intends to present at this meeting.

DOT&PF's goals for this public meeting are, through the public involvement process, to:

- Reach general consensus within the community that the PEL's draft Purpose and Need statement is accurate and complete, or; if it's determined the Purpose and Need statement needs refinement then it's DOT&PF's objective to edit this statement until general consensus is achieved.
- Solicit the community for their ideas (alternatives) on how to best address the project elements cited within the draft PEL, and request their participation on deciding which preliminarily alternatives should be eliminated do to it being unreasonable.
- Solicit the community for their preference on which project element should be completed first and their preference in sequencing the remaining project elements.

A 30 day public comment period will be part of this process; the comment period will end on January 17, 2020.

DOT&PF presenters at this public meeting will be:
Ryan Anderson, P.E., Northern Region Director;
Jeff Stutzke, P.E., Northern Region Hydraulics Engineer and the Copper River Highway PEL Engineering Manager, and;
Myself, Bill Kulash, Northern Region Environmental Impact Analyst III

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I hope to see you there and please bring along some friends, also feel free to distribute the attached documents.

Bill Kulash

William M. Kulash
Environmental Impact Analyst III
Office phone (907) 451-5292
Fax (907) 451-5126
Alaska Department of Transportation and Public Facilities
Division of Design and Engineering Services
2301 Peger Road, MS-2550-07
Fairbanks, Alaska 99709

From:	Marie, Megan E (DFG)
To:	Kulash, William M (DOT); Stutzke, Jeff P (DOT)
Cc:	Haught, Stormy B (DFG); Botz, Jeremy C (DFG); Baumer, Jay A (DFG); O"Doherty, Gillian M (DFG); Adelfio, Luca A -FS; Tanner, Theresa - FS
Subject:	RE: DOT&PF is hosting a public meeting in Cordova on December 17, 2019, to discuss the CRH PEL study
Date:	Friday, December 20, 2019 4:00:11 PM
Attachments:	Draft Copper River Highway PEL Document 12-17-19.pdf CRH PEL Figures 1-7.pdf July2017_east_CRH_culverts_condition.pdf RE CRH MP 38-43 Project.msg

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Habitat Section
Office: (907) 267-2446

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Sent: Thursday, December 12, 2019 2:21 PM
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Engineering Manager, and;
Myself, Bill Kulash, Northern Region Environmental Impact Analyst III

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William M. Kulash
Environmental Impact Analyst III
Office phone (907) 451-5292
Fax (907) 451-5126
Alaska Department of Transportation and Public Facilities
Division of Design and Engineering Services
2301 Peger Road, MS-2550-07
Fairbanks, Alaska 99709

From:	Kulash, William M (DOT)
To:	Jack and Cherrie STEVENSON
Cc:	Anderson, Ryan (DOT); Stutzke, Jeff P (DOT)
Subject:	RE: Help save the CRH
Date:	Tuesday, January 14, 2020 10:31:00 AM

Good morning Jack and Cherrie,
Thank you for your comments, they will be included in the Copper River Highway PEL study and will be used to help strengthen this document. We also thank you for your offer to help see the project succeed. The DOT&PF recognizes you're your knowledge and insight about this area and we are in agreement with your assessment.

Best regards,

Bill Kulash

From: Jack and Cherrie STEVENSON <jack_cherrie66@hotmail.com>
Sent: Tuesday, January 14, 2020 10:12 AM
To: Kulash, William M (DOT) <william.kulash@alaska.gov>
Subject: Help save the CRH

Hi William

We are writing this letter to support building a new access road at mile 44 on the Copper River Highway - Mile 44 Federal Lands Access Program (FLAP). We are the owners and operators of the Riverside Inn & Child's Glacier Tours in Cordova, AK. After bridge 339 on the Copper River Highway washed out in late 2011, we developed our operation to provide access to public land at the Child's Glacier Recreation Site and the Million Dollar Bridge. This area has a long and important history in the local community and is a beloved site for locals and tourists alike. For the past 7 years, we have had the privilege of providing transportation and logistical support for numerous user groups using vehicles located beyond bridge 339 on the Copper River Highway, and the recent washout at mile 44 threatens to end that access. Without a continuous roadway from bridge 339 to the Childs Glacier Recreation Site the only options to access this area are by helicopter, small fixed wing aircraft, or by navigating dangerous rapids by boat.

Each year, we bring an average of 700 tourists to view the beautiful Child's and Miles glaciers, enjoy the Childs Glacier Recreation Site, and explore the area. These tourists bring valuable money into our local economy through purchasing transportation, lodging, food, and souvenirs. The pictures and stories they share with their friends and families increase interest and help bring more tourist revenue to our small town. This public land is one of the most unique and beautiful places Cordova has to offer and has a long history of use by the local community as well. Our operation has allowed locals and their friends and families to continue to access this area and pursue all sorts of activities: hiking, cycling, boating, fishing, OHV operation, camping, gatherings, and even weddings.

We also help educational and media groups access this public land. We bring out school groups from both our local community and elsewhere in the United States, as well as media groups such as local news and special interest reporters. At the Childs Glacier Recreation Site, they learn firsthand about wilderness, glaciers, hydrology, and wildlife. The Alaska Department of Fish & Game (ADF&G) provides interpretive presentations on the Miles Lake sonar project and the importance of salmon to ecosystems and economies.

Our operation serves an important role in providing safe and economic options for transport for several government and tribal entities as well. ADF&G uses our service to supply the Miles Lake sonar project located at the site. We assist the Native Village of Eyak with similar support for their Chinook salmon mark-recapture project located further upriver. We provide transportation of equipment and personnel for the U.S. Forest Service so they can maintain the recreation site, assess hazards, and clear trails. The U.S. Geological Service uses our service to access remote data collection stations and assess river conditions. We transport Alaska Department of Transportation personnel so they can assess road conditions and perform safety inspections of the Million Dollar Bridge. These operations are made safer and more affordable using our vehicles and road access than they would be with alternative methods.

We hope this letter has demonstrated what a special and valuable place the Childs Glacier Recreation Site and associated public lands are. We care deeply about this area and believe
strongly in the value of its continued access. We are willing to offer what help we can to see this project be a success.

. I worked for the DOT for 32 years and every year we had to repair some area between 36mile and 42 mile, it was always a challenge but some how we always got it done. I am sure some folks would like to see the bridge 336 fixed and then move on to 44 mi but they need to be realistic .If we can not fund the AMHS and many other State project we surely cannot fix a road to nowhere .I worked with Goodfellow construction building the road and installing the bridges between 33mi and 39 and I have also worked on repairing many of them due to the movement of the Copper river. We could spent 70 million and fix 336 bridge and then a couple years later the river could reroute and move to destroy another bridge or area of the road. No fix will be permanent since the river will always be shifting .The ice breaker will have to be fixed in the winter and I believe that equipment could be moved out there while the river is low,or another option is to reroute the river like we did when they replaced the bridges for 36 to 39,they just sent all the water down to 27/28 mi while the work was being done and then opened it back up when the job was finished. We would enjoy taking folks out to again if everyone could agree on the reroute and get things moving again. The Childs Glacier and Million Dollar Bridge is one of the best attractions Cordova has to offer for tourism and definitely gives a boost to the economy, it would be a shame to have this historical monument which the State of Alaska has invested so much into go to disrepair.

Thank you for your time,
Jack & Cherrie Stevenson
Riverside Inn & Airboat Tours LLC

From: Marie, Megan E (DFG)
To: Johnson, Russell M (DOT); Mason, Sara E (DOT)
Cc: Oswald, Steven Carl (DOT); Kristin Smith
Subject: RE: CRH MP 38-43 Project
Date: Thursday, May 19, 2011 3:00:00 PM

Hello all,

Just a quick clarification on this project. The statement below that "ADF&G were questioning why the culverts are being replaced" is incorrect. ADF&G has supported the removal/blockage of the cross drainage culverts on this section of road with the exception of the twin 12 foot pipes at MP40. Our reason for requesting these culverts remain in place is only partially for fish passage since the culverts are and will remain a velocity barrier at most flows. The primary reason for retaining flow through these culverts is the uncertainty related to potential changes in flow in downstream habitat both in Clear Creek and in other locations within the Copper River Delta Critical Habitat Area.

We are looking forward to working with ADOT&PF on this project and please feel free to contact me with any questions. My apologies for any miscommunication on this subject. Have a great summer!

Megan Marie
ADF&G Habitat
(907) 267-2446

From: Johnson, Russell M (DOT)
Sent: Thursday, May 19, 2011 12:03 PM
To: Mason, Sara E (DOT)
Cc: Marie, Megan E (DFG); Oswald, Steven Carl (DOT)
Subject: RE: CRH MP 38-43 Project

We are removing all culverts except the 2 existing 12 foot multiplates will remain "as-is". No culverts will be replaced.

The multiplates will not be removed or blocked per ADF&G's (Megan Marie) request on October 19, 2010 (see the attached e-mail). The reasoning Megan gave to keep the multiplates is because ADF&G's concern about keeping the culverts for fish passage.

Russ Johnson
AK DOT&PF
451-5059

From: Mason, Sara E (DOT)
Sent: Thursday, May 19, 2011 11:45 AM
To: Johnson, Russell M (DOT)
Subject: CRH MP 38-43 Project

Russ,

I recently received an inquiry about the CRH 38-43 project. Copper River Watershed Project (CRWP) and ADF&G were questioning why the culverts are being replaced, rather than being removed and

allowing the roadway to act as a dike. The dike option is apparently also the preference of M&O (Robert Dunning) in Valdez.

Is there an explanation that I can give them as to why culverts are better suited for this project? I assumed there was a good reason; I just don't know it.

Thanks!

Sara E. Mason
Southern Area Planner
Northern Region Planning Division
Alaska Department of Transportation &
Public Facilities
(907) 451-2375
sara.mason@alaska.gov
http://dot.alaska.gov/nreg/planning/

CRH TMP Public Involvement Efforts

DOT&PF used a variety of strategic tools to reach stakeholders in meaningful ways in support of the CRH MP development process.

Stakeholder Advisory Committee (SAC) Meeting - January 26, 2022: An advisory committee comprised representing key stakeholder constituencies met prior to the in-person public meeting to propose a vision statement for the Copper River Highway, identify existing conditions, identify project needs, and consider project review criteria.

A second SAC meeting was held June 6, 2022 to review evaluation criteria, followed by a meeting on January 9, 2023 to review the online ranking process.

A final SAC meeting will be held virtually in July 2023 to review the draft CRH TMP.

SAC Meeting, January 2022

Copper River Highway Transportation Master Plan

Stakeholder Advisory Committee Meeting

January 26, 2022

11:00 a.m. – 1:00 p.m.

Cordova Center

Join Zoom Meeting:
https://us06web.zoom.us/j/88647021839?pwd=K2t3eWhyZVhFVTg2SzhTSmtTSTVnZz09

Meeting Purpose: Solicit ideas on the long-term vision (25 years) for the Copper River Highway. Discuss transportation issues and concerns along the Copper River Highway, and review project evaluation and public involvement approach with the

1. Welcome – April Woolery, DOT&PF
2. Introductions and Agenda – Julie Jessen, CRW
3. Project Overview – Adison Spafford, CRW
4. Current Conditions – All
5. Future Needs – All

Break for Box Lunch

6. Vision and Goals – All
7. Project Prioritization Process – Adison Spafford, CRW
8. Public Involvement Approach – Adison Spafford, CRW
9. Wrap Up and Next Steps – Julie Jessen
    a. Next Advisory Committee meeting – June 2022.

A Public Open House will be held at the Cordova Center, 5:00 – 7:00 p.m. on January 26, with a brief presentation at 5:30.

Alaska Department of Transportation and Public Facilities

Copper River Highway Transportation Master Plan

January 26, 2022 Advisory Committee Meeting*

Name	Business or Organization	City (if not Cordova)	Email address	*Gender (M, F, X)	*Race (W, AN/NA, B, H, A, PI, O)
William M. Kulash	DOT & PF	Fairbanks, AK	William.Kulash@alaska.gov		
JULIE JESSEN	CRW	ANC, AK	JJESSEN@CRWENG.COM	M F	W
JEFF STUTZKE	DOT & PF	FAIRBANKS, AK.	jeff.stutzke@alaska.gov	M	W
April Woolery	DOT + PF	Fairbanks, AK	april.woolery@alaska.gov	F	W
Adison Spafford	CRW ENG	ANC, AK	aspafford@crweng.com	f	W
Michelle Harrison	CRW ENG	Anc AK	mharrison@crweng.com	f	W
Lisa Docken	Copper River Watershed Project	CDV.	lisa@copperriver.org	F	W
Robert Dunning (Zoom)	DOT+PF				

* This information is voluntary and is used to ensure fair and equal representation by the public in projects administered by DOT&PF. Race: (White, Alaska Native/Native American, Black, Hispanic, Asian, Pacific Islander, Other)

Title VI of The Civil Rights Act of 1964: It is the policy of the Alaska Department of Transportation and Public Facilities (ADOT&PF), in accordance with 49 CFR Part 21 (Department of Transportation Regulations for the Implementation of Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987 (P.L. 100.259)m and 23 CFR Part 200 (Title VI Program and Related Statutes-Implementation and Review Procedures, Executive Order 12250, 23 USC 324 (Prohibition of Discrimination on the Basis of Sex), Title VIII of the Civil Rights Act of 1964m 23 USC 109(h), DOT Order 1050.2, the Civil Rights Restoration Act of 1987m and Executive Order 12898-Environmental Justice, that no person in the State of Alaska shall, on the grounds of race, color, sex, or national origin, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination under any program or activity regardless of whether the Department receives federal assistance from the US Department of Transportation, including the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

Americans with Disabilities Act: It is the policy of the Alaska Department of Transportation & Public Facilities (ADOT&PF) that no qualified individual with a disability shall, solely on the basis of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any of its programs, services, or activities as provided by Section 504 of the Rehabilitation Act of 1973and the Americans with Disabilities Act of 1990 (ADA). ADOT&PF further assures that every effort will be made to provide nondiscrimination in all of its programs and activities regardless of the funding source, including FTA, FAA, FHWA, and state funds.

Alaska Department of Transportation and Public Facilities

Copper River Highway Transportation Master Plan

January 26, 2022 Advisory Committee Meeting*

Name	Business or Organization	City (if not Cordova)	Email address	*Gender (M, F, X)	*Race (W, AN/NA, B, H, A, PI, O)
Jeremy Botz	ADFG				
DAVID Phillips	Chugach AK Corp				
Judy Chapman	DOT+PF				
Megan Marie	ADFG				
Tyler Quiring	HVE				
Brennan Cain	Eyak Corp				

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Copper River Highway Transportation Master Plan

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Robert Mattson	DOT M+O	Cordova		M	
LUKE BORER	CHILDS GLACIER LODGE	CORDOVA	NATIVE@CTCAK.NET	M	AN
Kevin Johnson	City of Cordova	Cordova	Planning@CityofCordova.net	M	W
Kristin Carpenter	PWSEDD		executivedirector@pwsedd.org	F	W

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Page 3 of 3

Copper River Highway Transportation Master Plan

Stakeholder Advisory Committee Meeting

January 26, 2022

1

Purpose of Meeting

- DOT&PF wants to work with the community to develop a vision for the Copper River Highway Corridor.
- DOT&PF wants to work with the community to identify issues within the corridor.
- A Master Plan will help the DOT&PF as well as the City and Tribal government secure funding from various sources.

2

What is the Copper River Highway Transportation Master Plan?

- Takes a high-level view of the corridor with a **25-year timeframe.**
- Looks at **multiple modes of transportation**, as well as potential land use changes and economic benefits.
- Identifies **future projects** based on economic, community, land use and other long-term goals.
- **Prioritizes potential projects** using goal-driven criteria.
- Coordinates planning document with the Copper River Highway Planning and Environmental Linkage Study.
- Identifies **potential funding** sources for prioritized projects.

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Why is the Copper River Highway Transportation Master Plan Important?

- Creates a vision for future use of the CRH.
- Identifies transportation issues and concerns along the CRH.
- Identifies transportation issues and priorities from the community's perspective.
- Supports long-range planning and land use decisions based on community values.
- Identifies potential funding sources and partners.

4

What is the Planning Process for a Master Plan?

- Review existing planning documents and other projects within the CRH study area.
- Document existing conditions.
- Conduct public outreach.
- Develop a vision.
- Develop alternatives.
- Document transportation needs and issues within the study area.
- Evaluate projects based on criteria developed by the planning team.
- Prioritize and recommend projects based on public input and scoring from the evaluation exercise.
- Prepare planning level costs estimates for the recommended projects.
- Prepare a final plan for DOT&PF and the community.

5

Where We Are in the Planning Process

Progress to-date

1. Existing community and transportation plans reviewed.
2. Project criteria developed.
3. Existing corridor conditions documented.

Next Steps

1. Finalize a vison for the CRH.
2. Conduct needs analysis based on public input and existing conditions of CRH.
3. Finalize project evaluation criteria.
4. Continue public outreach.
5. Recommend alternatives for CRH.
6. Recommend top transportation projects for the CRH.
7. Develop cost estimates for the projects identified.
8. Draft final plan.

6

Copper River Highway Transportation Master Plan Schedule and Next Steps

Copper River Highway Transportation Master Plan Schedule

	2021				2022										
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Documentation of Existing Conditions Summary	x	x	x	x												
Advisory Committee Meeting #1					x											
Community Meeting #1					x											
Needs Analysis Summary						x	x	x	x							
Advisory Committee Meeting #2										x						
Community Meeting #2										x						
Needs Analysis and Alternatives Recommendations											x	x				
DRAFT Report												x				
Advisory Committee Meeting #3													x			
Draft Final Report														x	x	
Final Report Submitted to DOT&PF for Approval																x

7

How to Provide Input and Stay Involved!

- Complete the comment form.
- Meet with one of the planning team members to provide your input on the vision of the CRH and identify transportation issues along the corridor.
- Take the survey: https://arcg.is/1Cri4b0
- Visit DOT&PF's Facebook Page.
- Sign up for our newsletter – email JJessen@crweng.com.

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CRW Engineering
Adison Spafford, Planner
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Copper River Highway Transportation Master Plan

Stakeholder Advisory Committee Meeting

January 26, 2022

11:00 a.m. – 1:00 p.m.

Cordova Center

Attendees:
DOT&PF: Judy Chapman (via Zoom), Jeff Stutzke, William Woolery, April Wooley
CRW: Adison Spafford, Julie Jessen, Michelle Harrison
Advisory Committee – In Person: Lisa Docken, Copper River Watershed; Kevin Johnson, City of Cordova; Kristen Carpenter, Prince William Sound Economic Development District; Luke Borer, Child Glacier Lodge
Advisory Committee – via Zoom: Robert Dunning, DOT&PFM&O; Robert Mattson, DOT&PF Airport M&O; Jeremy Botz, ADF&G; Megan Marie, ADF&G; Tyler Quiring, Native Village of Eyak; David Phillips, Chugach Alaska Corporation; Brennan Cain, Eyak Corp; Ricky Gease, DNR State Parks

April Woolery, DOT&PF, welcomed the group and gave a brief background on the Copper River Highway (CRH) Transportation Master Plan purpose. The Stakeholder Advisory Committee (SAC) will help DOT&PF identify a long-term vision (25 years) for the CRH Corridor, from MP 0 (Ferry Terminal) to MP 51 (Million Dollar Bridge -MDB). The meeting today is to discuss transportation issues and concerns along the CRH and develop a vision for the CRH corridor as part of the master planning effort. The final planning document will help DOT&PF as well as the City, Tribal government, and other entities secure funding from various sources.

The master plan will include a review of existing planning documents, document existing conditions, reflect public outreach, develop alternatives based on a broad vision for the corridor, document needs, evaluate potential projects, and prioritize and recommend projects based on public input.

While the ferry terminal, Alaska Marine Highway System, and airport are not specifically part of the Master Plan, DOT&PF is looking at ways to improve the nexus between transportation modes and access to facilities.

Adison Spafford, CRW, gave a project overview. During review of the current Planning and Environmental Linkages (PEL) study for a portion of the CRH, Western Federal Lands and the Federal Highway Administration (FHWA) requested a broader master plan to address the long-term vision of the CRH corridor from MP 0 to MP 51.

The goal is to secure funding for prioritized projects. The plan will also help identify alternatives for the corridor, and specific transpiration projects. The plan is scheduled for completion by December 2022.

The plan can include recreation needs such as bike trails, pull outs, etc. and DOT&PF is looking to agencies and other entities to provide input on planned or current projects within the corridor that might influence long-term use of the highway.

While it is not a requirement for the plan to be updated, best practices have master plans updated every five years.

Ricky Gease, Alaska State Parks, suggested possible funding opportunities for recreation improvements through the Land Water Conservation Fund (LWCF), which has a 50/50 match program though the National Park Service (NPS), and Recreational Trails Program (RTP), a Federal-Aid assistance program though the federal highways, which are open to government agencies, Tribes, and nonprofit agencies.

The group identified current conditions to helps frame where we want to be in the future. Imminent projects include:

- Copper River Watershed
  - Eyak Lake weir replacement at MP 5
  - CRH MP 3 Culvert Preplacement
  - CRH MP X Culvert Preplacement
  - CRH MP 1 Culvert Preplacement
- City of Cordova
  - Ped and bike path to connect from Orca Inlet to the CRH and the airport
- Prince William Sound Economic Development District
  - Tourism Marketing
- DOT&PF
  - Ongoing Regional Drainage Improvement projects (river encroachments, Odiak Slough (deep culvert), Eyak Lake weir, recently completed Orca Road, Power Creek, 2nd Ave Upgrades)
  - 21.5 CRH culvert replacement (fish pass culvert)
  - Bridge improvements may be slated with coming funding
  - Whitshed Road pedestrian improvement
  - Cordova 2nd St
  - City Stairs
  - Airport Master Plan
  - RF Building Replacement (PFAS issues)
  - Oniak

- Child Glacier Lodge
  - New methods (variable river access) to get boats in the water at MP 36 (River channel is changing and impeding access)
- Chugach Alaska Corporation
  - Has several materials sites along corridor
- Native Village of Eyak
  - Eyak River Recreation Area rehab with other agencies to replace the boat launch near MP 5.5 of CRH

The group listed qualities of the current corridor and how it is used by the community:

- Main Artery
- Rustic
- Scenic
- Barrier – (Speaking for the fish)
- Tank Trail
- Subsistence Access
- Historic
- Local Recreation
- Traditional Use
- Economic Driver
  - Tourism
  - Airport Access
  - Fish Processing
  - Abundant and Rich Traditional area for Eyak People

Following lunch, the group looked toward future-state issues, including economic drivers that might influence corridor use 10, 15, 25 years from now:

- Quality of life
  - Bike Trail to Airport
- More people
- More non- motorized opportunities
- More motorized opportunities
- Changing river – Glacier retreat will change conditions
- More tourism
- Changes to fisheries – size could change
- More sport fishing
- Continued need for fish passage - to protect resource
- More housing is needed
- Development occurs
  - In town – Limited space, not much easily useable land available
  - Utilities - expand to encourage development – possible toward airport
- Connect CRH to the rest of the state

The group then described how CRH will be in 2047:

- World Famous
- Multi-use
- Fish Friendly
- Paved to Child's Glacier

- Diverse
- Maintains traditions
- Scenic
- Above water
- Main drag
- Various recreational opportunities – Motor and Non
- Harvesting
- Enjoying
- Sustaining

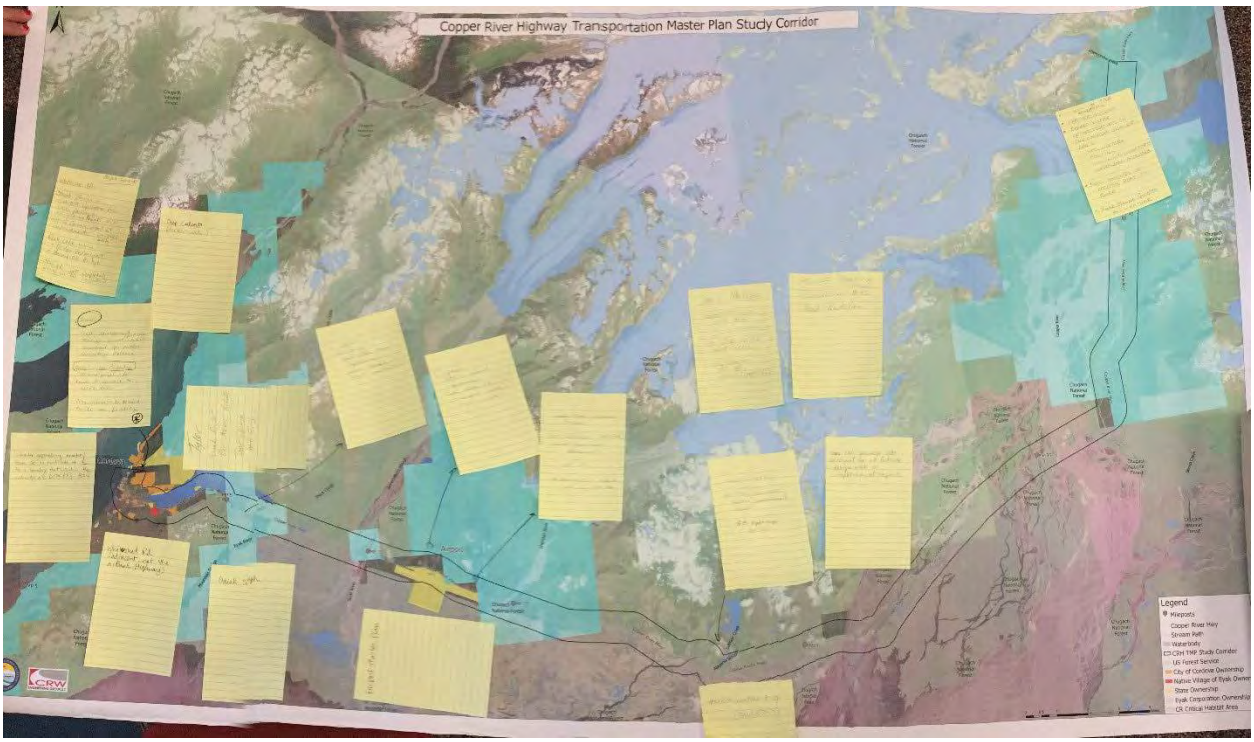
When asked to describe projects the group would like to see in the future, they suggested:

- Remove Fish Pass Barriers – update fish pass culverts
- Utilities to the airport
- Bike Path – Ferry Terminal to Airport
- Complete repairs and paved highway to repaired MDB
- Maintainable
- Funded
- Allows for habitat connectivity – Sediment transport, moose, fish, birds, hydrology
- Maintains safe access to hunting, fishing, wildlife viewing
- Provides access to Childs Glacier and MDB
- Protects existing investments

The group was provided copies of the CRH Transportation Master Plan Public Involvement Plan and requested to provide comments to Adison Spafford

The group was invited to attend the public open house later in the day and encourage people to attend. The next SAC meeting will be in June to discuss the draft project review criteria and plan vision statement.

January 2022 SAC Project Identification Mapping Exercise:



Copper River Highway Transportation Master Plan

Stakeholder Advisory Committee Meeting

June 6, 2022
10:00 a.m.

Join Zoom Meeting:
https://us06web.zoom.us/j/88000035133?pwd=cWNvQmRHMFBVaStJQldjNW9kWGh6QT09

Meeting Purpose: Review proposed Vision Statement, review and amend list of projects identified to date, and confirm draft evaluation criteria.

1. Welcome, Introductions, and Agenda – Julie Jessen, CRW
2. Project Update – Adison Spafford, CRW
3. Confirm Vision Statement - All
4. Project List to Date – Adison Spafford, All
5. Criteria and Project Evaluation Process – Adison Spafford, All
6. Wrap Up and Next Steps – Julie Jessen
    a. Next Advisory Committee and public meetings – Fall 2022


Copper River Highway
Transportation Master Plan (CRH TMP)

Stakeholder Advisory Committee Meeting #2

June 6, 2022
Virtual

1

Meeting Agenda

Meeting Purpose: Review proposed Vision Statement, review and amend list of projects identified to date, and confirm draft evaluation criteria.

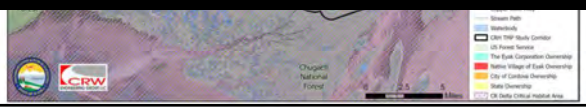
1. Welcome and Introductions
2. Project Update
3. Confirm Vision Statement
4. Project List to Date Criteria and Project Evaluation Process
5. Wrap Up and Next Steps

2

Project Update

3

[redacted]



4

Purpose of the CRH TMP

- Address Access
- Show Vision
- Identify Partnership Opportunities
- Identify Funding

5

Planning Process

- Review existing planning documents and other projects within the CRH study area.
- Document existing conditions.
- Conduct public outreach.
- Develop a vision.
- Develop alternatives.
- Document transportation needs and issues within the study area.
- Evaluate projects based on criteria developed by the planning team.
- Prioritize and recommend projects based on public input and scoring from the evaluation exercise.
- Prepare planning level costs estimates for the recommended projects.
- Prepare a final plan for DOT&PF and the community.

6

Draft Vision Statement

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Draft Vision Statement

The Copper River Highway will be a safe, reliable, multi-modal transportation corridor that provides access to recreational, economic, and cultural activities for community members and visitors alike while sustaining the area's scenic, cultural, and ecological attributes.

Developed by CRH Stakeholders and Cordova Residents

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What is the Copper River Highway Transportation Master Plan?

- Takes a high-level view of the corridor with a **25-year timeframe.**
- Looks at **multiple modes of transportation**, as well as potential land use changes and economic benefits.
- Identifies **future projects** based on economic, community, land use and other long-term goals.
- **Prioritizes potential projects** using goal-driven criteria.
- Coordinates planning document with the draft Copper River Highway Planning and Environmental Linkage Study (2019).
- Identifies **potential funding** sources and **project partners** for prioritized projects.

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Projects Heard to Date

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What we have heard to date

Planning and Environmental Linkage (PEL)

- **Bridge 339** - Reestablish public access across NBI #339 and its associated washout (~MP 36)
- **MP 44-45** - Reestablish public access across a segment of the CRH that has been completely eroded away by the Copper River
- **Million Dollar Bridge** - Repair or replace the icebreaker at Pier 1 of the Million Dollar Bridge and complete necessary repairs identified through future engineering studies
- **Culvert Replacement** - Replace 25 culverts that are not in compliance with the Memorandum of Agreement between ADF&G and DOT&PF for the design, permitting, and construction of fish passage culverts
- **Material Site Development** - Expand or develop new material sites, including a hard rock material site near MP 44. Determine the logistics that will be required to get the heavy equipment needed to construct the projects to their respective sites, including development of project staging area(s).

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What we have heard to date

Stakeholder Advisory Committee

- Remove fish pass barriers/replace culverts
- Link utilities from city to airport
- Add bike path between ferry terminal and airport
- Complete all CRH road improvements to Million Dollar Bridge
- Pave CRH to Million Dollar Bridge
- Develop projects that allow for habitat connectivity
- Maintain safe access to hunting, fishing, wildlife viewing, and subsistence areas
- Provide access to Childs Glacier
- Protect existing investments

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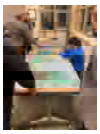
What we have heard to date

Community Meeting

- In-town safety improvements
- Improve parking (various locations)
- Culvert replacements and drainage improvements (various locations)
- Expand trail access
- Expand bike and pedestrian facilities
- Build runway at Million Dollar Bridge
- Restore access to 50 Mile
- Connect to the Richardson Highway
- Re-route CRH



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What we have heard to-date

Community Meetings

Outside City – MP 5/6-51

1. Reroute the CRH.
2. Design and Construct all Projects Identified in the PEL.
3. Wrong Way Creek Parking Lot.
4. Eyak River Bridge Replacement – Narrow and lots of motorized traffic. Safety concerns.
5. MP 7 – Parking area like Sand Trail. Cars Park along this stretch of highway, causing major safety concern issues.
6. Runway at Million Dollar Bridge.
7. Access to 50 mile and Forest Service Recreational Area.
8. Connect the CRH to the Richardson Highway.

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What we have heard to-date

Community Meetings

Outside City – MP 5/6-51

1. Culvert Replacement MP 1-5 (same concerns within the City).
2. Mile Loop Road – Culvert Replacement -Culvert that doesn't run all the time. Flooding is occurring and causing major issues with water in the neighborhood and road.
3. Highway Paving – Severe cracking, specifically at MP 6.
4. MP 16 – Potential Parking lot.
5. MP 20 – Road needs to be raised about 4 feet.
6. Haystack Trail Access – Needs expansion.
7. Bike and Pedestrian Facilities – Along the CRH, at least to the airport.

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What we have heard to date

Youth Engagement –Cordova Highschool

- Add trailheads and outhouses
- Fix all bridges to access Miles Glacier
- Repair 42 Mile Road
- Add turnarounds spots for vehicles with trailers
- Add parking lot and outhouse at 52 Mile
- Clear brush
- Build boat launch at 27 Mile
- Add multi-use corridor (both sides of CRH)
  - ATV/snowmachine trail
  - Snowshoe/cross country skiing trail

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Where We Are in the Planning Process

Progress to-date

1. Existing community and transportation plans reviewed.
2. Project criteria developed.
3. Existing corridor conditions documented.
4. Stakeholder and community meeting held on January 25.
5. Vision statement drafted.
6. Needs list developed.

Next Steps

1. Conduct needs analysis based on public input and existing conditions of CRH.
2. Finalize project evaluation criteria.
3. Continue public outreach.
4. Recommend alternatives for CRH.
5. Recommend top transportation projects for the CRH.
6. Develop cost estimates for the projects identified.
7. Draft final plan.

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Proposed Evaluation Criteria

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Project Evaluation Criteria

1. Sustainability
2. Safety
3. System Preservation
4. Connectivity
5. Economic and Health

(See DRAFT Evaluation Criteria)

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Potential Funding Opportunities

- Denali Commission
- United States Army Corps of Engineers
- Western Federal Lands Program
- U.S. DOT/Federal Highway Administration – Mega/Rural Surface Transportation/Nationally Significant Federal Lands and Tribal Projects
- Other IIJA Discretionary Grants
- Tribal Transportation Program – Safety, Bridge, Trails, Climate Change, Transit
- Bureau of Indian Affairs – Tribal Resiliency Program
- United Stated Department of Agriculture - Natural Resources Conservation Service

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Next Steps

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Copper River Highway Transportation Master Plan Schedule and Next Steps

Copper River Highway Transportation Master Plan Schedule	2021		2022											
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Document Existing Conditions	X													
Stakeholder Advisory Committee Meeting #1			X											
Community Meeting #1			X											
Needs Analysis Summary					X									
Stakeholder Advisory Committee Meeting #2								X						
Community Meeting #2												X		
Needs Analysis and Alternatives Recommendations												X		
Draft Report													X	
Stakeholder Advisory Committee Meeting #3											X			
Final Report														X

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Public Outreach Methods Used

- Visit the project website Project Website and the story map - Copper River Highway Story Map
- Take the survey: https://arcg.is/1Cri4b0
- Visit DOT&PF's Facebook Page.
- Sign up for our newsletter – email JJessen@crweng.com.

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Copper River Highway Transportation Master Plan

Stakeholder Advisory Committee (SAC) Meeting

June 6, 2022 (Zoom)

Meeting Purpose: Review proposed Vision Statement, review and amend list of projects identified to date, and confirm draft evaluation criteria.

Attendees:
DOT&PF: Judy Chapman (via Zoom), William Kulash, April Wooley
CRW: Adison Spafford, Julie Jessen
Advisory Committee: Kate Morse, Copper River Watershed; Kevin Johnson, City of Cordova; Robert Dunning, DOT&PFM&O; Megan Marie, ADF&G; David Phillips, Chugach Alaska Corporation; Ricky Gease, DNR State Parks; Scott Newlun, Cordova Electric Cooperative

Following introductions, Adison Spafford (CRW) reviewed the purpose of the Copper River Highway Master Plan (CRH MP) and the master plan process. Ideas for projects within the corridor are still encouraged and the public is invited to submit suggestions through August 31 through the online survey.

A draft corridor vision statement, which incorporated thoughts heard at the January SAC and public meetings, was shared: *The Copper River Highway will be a safe, reliable, multi-modal transportation corridor that provides access to recreational, economic, and cultural activities for community members and visitors alike while sustaining the area's scenic, cultural, and ecological attributes.* The SAC recommended adding a statement regarding access to Alaska Native Land and Housing. CRW will work with DOT&PF and revise the vision statement per the SAC's comments.

Next, the group reviewed a list of projects heard to date. CRW will work with SAC members to add information/descriptions for each of the projects to facilitate evaluation and ranking.

The majority of the meeting focused on draft project evaluation criteria, which the SAC will use to review projects at the group's next meeting. Ideally, the draft CRH MP will include the top five short-

term and top five long-term projects to be implemented. Goal areas included Sustainability, Safety, System Preservation, Connectivity, and Health and Economy, to which the group added "Other".

Additional comments included:

- Move G2.3 supports resiliency to Goal 1 Sustainability and expand definition beyond responding to natural disasters
- Move G4.4 Improves multi-modal transportation safety to Goal 2 Safety
- Amend G5.1 to Supports connectivity of fish and wildlife habitat
- Amend G5.2 to include access to cultural and historic sites
- Add Maintains established ROW to Goal 3 System Preservation

In the Other goal category, the group suggested adding the following based on the proposed vision statement:

- (Project) Has community support
- Partnership potential (similar to G1.2)
- Protects scenic qualities
- Minimizes impact to minority and disadvantaged populations (environmental justice/equity)
- Future expandability (e.g., allow space for future projects – sequence the projects)

The next SAC meeting will be held in Cordova in September, and the group will receive a packet of projects to review based on the updated evaluation criteria. SAC members will be asked to send their reviews to CRW in advance of the meeting and CRW will compile rankings for discussion.

A public meeting on the draft plan, including a list of projects and ranking, will be held in October.

	Copper River Highway Transportation Master Plan - Project Ranking Matrix				
	Criteria	**Reference Information**	**Rank ability of each criteria to meet Goal** **0 = Not applicable** **1 = Low** **2 = Moderate** **3 = High**	**Reference Information**	**Rank ability of each criteria to meet Goal** **0 = Not applicable** **1 = Low** **2 = Moderate** **3= High**
	Goal 1 - Sustainability	**Project 1 (name)**	**Project 1 (name)**	**Project 2 (name)**	**Project 2 (name)**
G1.1	Reduces long-term O&M costs				
G1.2	Has potential to leverage multiple funding sources/partnerships				
G1.3	Long term cost benefit				
G1.4	Limited long-term environmental/human impact				
G1.5	Supports long-term economic development				
G1.6	Within DOT&PF ROW				
	Goal 2 - Safety				
G2.1	Addresses critical need with immediate health and safety consequences				
G2.2	Improves long-term health and safety through improved transportation conditions				
G2.3	Supports resiliency (move to sustainability)				
G2.4	Meets FHWA/FAA health and safety design criteria				
G2.5	Provides safe multi-modal transportation access options				
	Goal 3 - System Preservation				
G3.1	Improves existing system or facility				
G3.2	Supports preventative maintenance				
G3.3	Supports other state/federal investments	Add maintains established ROW (eliminates or reduces encroachments)			
	Goal 4 - Connectivity				
G4.1	Improves access to existing intermodal facilities				
G4.2	Creates new infrastructure in support of other transportation systems or land uses				
G4.3	Supports multi-modal transportation options				
G4.4	improves multi-modal transportation safety (move to safety)				
	Goal 5 - Economic and Environmental Health				
G5.1	Supports connectivity of fish and wildlife habitat				
G5.2	Improves access to recreational and subsistence opportunities (cultural and historic sites)				
G5.3	Improves quality of life (dust control, improved access to basic health and sanitation facilities)				
G5.4	Creates opportunities for economic development				
G5.5	Identified in existing plans (City of Cordova Comprehensive Plan, Statewide Long Range Transportation Plan, PWS Transportation Plan, PEL)				
	Other				

Public Meetings: The goal of the meetings/open houses was to facilitate communication between the DOT&PF and the broader community of Cordova. Public open houses were held at key phases of project development as structured, open forums for the community and general public. Meetings were advertised at least two weeks in advance in the Cordova Times, post card mailing (for Meeting #1), and via the project newsletter to encourage public awareness and participation.

Public Meeting #1

January 26, 2022 – Cordova Center

A post card was sent to approximately 770 residents, landowners, business owners, elected officials, and others. Advertisements ran in the Cordova Times, Cordova's weekly newspaper, on January 14 and January 21, 2021. Twenty-five people provided information on the sign-in sheet.

The project team also met with youth from the Cordova High School on February 9, 2022 to identify current conditions and future needs along the highway corridor.

A second public open house will be held in August 2023 to review the draft plan.

January 26, 2022 Public Meeting

Alaska Department of Transportation and Public Facilities
Copper River Highway Transportation Master Plan

What does the future of the Copper River Highway corridor look like?

DOT&PF is launching the Copper River Highway Transportation Master Plan to help the department envision the future of the entire highway corridor, from the ferry terminal to the Million Dollar Bridge. The study will focus on roadway, aviation, riverine, recreational, and other surface improvements. Share your thoughts at the Copper River Highway Transportation Master Plan kickoff and open house!

Open House

Wednesday, January 26, 2022
Cordova Center, 601 First Street
Community Room A

Open House - 5:00 - 7:00 p.m.
Presentation - 5:30 p.m.

Alaska Department of Transportation
and Public Facilities - Northern Region
2301 Peger Road
Fairbanks, AK 99709

Address Block

Copper River Highway Transportation Master Plan Public Open House January 26, 2022

Alaska Department of Transportation and Public Facilities
Copper River Highway Transportation Master Plan

What does the future of the Copper River Highway corridor look like?

DOT&PF is launching the Copper River Highway Transportation Master Plan to help the department envision the future of the entire highway corridor, from the ferry terminal to the Million Dollar Bridge. The study will focus on roadway, aviation, riverine, recreational, and other surface improvements. Share your thoughts at the Copper River Highway Transportation Master Plan kickoff and open house!

Open House

Wednesday, January 26, 2022
Cordova Center, 601 First Street
Community Room A

Open House - 5:00 - 7:00 p.m.
Presentation - 5:30 p.m.

DOT&PF operates all programs without regard to race, religion, color, gender, age, marital status, ability, or national origin. See DOT&PF's full Title VI Nondiscrimination Policy here: dot.alaska.gov/tvi_statement.shtml. To file a complaint go to: dot.alaska.gov/cvlrts/titlevi.shtml.

Alaska Department of Transportation and Public Facilities

Copper River Highway Transportation Master Plan

January 26, 2022 Public Open House*

Name	Business or Organization	City (if not Cordova)	Email address	*Gender (M, F, X)	*Race (W, AN/NA, B, H, A, PI, O)
Kenny Reuer	Dineega Services		Utopia-Reuer1@hotmail.com	M	O
Donald Tyler	Eagle Contracting		ecc1@ctcak	M	W
	North Star Lumber		North Star Lumber@CTC.net	M	W
Jeff Bailey	FISHING		jseffish@gmail.com	M	W
Helen Howarth	City of Cordova		citymanager@cityofcordova.net	F	W
MARK HALL	PLAN COMM		MJHALL105@gmail.com	M	W

* This information is voluntary and is used to ensure fair and equal representation by the public in projects administered by DOT&PF. Race: (White, Alaska Native/Native American, Black, Hispanic, Asian, Pacific Islander, Other)

Title VI of The Civil Rights Act of 1964: It is the policy of the Alaska Department of Transportation and Public Facilities (ADOT&PF), in accordance with 49 CFR Part 21 (Department of Transportation Regulations for the Implementation of Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987 (P.L. 100.259)m and 23 CFR Part 200 (Title VI Program and Related Statutes-Implementation and Review Procedures, Executive Order 12250, 23 USC 324 (Prohibition of Discrimination on the Basis of Sex), Title VIII of the Civil Rights Act of 1964m 23 USC 109(h), DOT Order 1050.2, the Civil Rights Restoration Act of 1987m and Executive Order 12898-Environmental Justice, that no person in the State of Alaska shall, on the grounds of race, color, sex, or national origin, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination under any program or activity regardless of whether the Department receives federal assistance from the US Department of Transportation, including the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

Americans with Disabilities Act: It is the policy of the Alaska Department of Transportation & Public Facilities (ADOT&PF) that no qualified individual with a disability shall, solely on the basis of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any of its programs, services, or activities as provided by Section 504 of the Rehabilitation Act of 1973and the Americans with Disabilities Act of 1990 (ADA). ADOT&PF further assures that every effort will be made to provide nondiscrimination in all of its programs and activities regardless of the funding source, including FTA, FAA, FHWA, and state funds.

ENGINEERING GROUP, LLC

Alaska Department of Transportation and Public Facilities

Copper River Highway Transportation Master Plan

January 26, 2022 Public Open House*

Name	Business or Organization	City (if not Cordova)	Email address	*Gender (M, F, X)	*Race (W, AN/NA, B, H, A, PI, O)
April Woolery	DOT+PF	Fairbanks	april.woolery@alaska.gov	F	W
William Kulash	DOT&PF	Fairbanks, AK	william.kulash@alaska.gov	M	W
Sharon McCalvy		Cordova, AK	slmccalvy@gmail.com	F	W
IRA GRINDLE		CDV	igrindle@CTEAK.NET	M	
Ralph Bullis	Feather Productions		electron30@gci.net	M	W
Barb Hanson		CDV	blhanson@akonet	F	
Sean O'Brien	NVE	CDV	Sean.OBrien@eycic-nsn.gov	M	AN

* This information is voluntary and is used to ensure fair and equal representation by the public in projects administered by DOT&PF. Race: (White, Alaska Native/Native American, Black, Hispanic, Asian, Pacific Islander, Other)

Title VI of The Civil Rights Act of 1964: It is the policy of the Alaska Department of Transportation and Public Facilities (ADOT&PF), in accordance with 49 CFR Part 21 (Department of Transportation Regulations for the Implementation of Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987 (P.L. 100.259)m and 23 CFR Part 200 (Title VI Program and Related Statutes-Implementation and Review Procedures, Executive Order 12250, 23 USC 324 (Prohibition of Discrimination on the Basis of Sex), Title VIII of the Civil Rights Act of 1964m 23 USC 109(h), DOT Order 1050.2, the Civil Rights Restoration Act of 1987m and Executive Order 12898-Environmental Justice, that no person in the State of Alaska shall, on the grounds of race, color, sex, or national origin, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination under any program or activity regardless of whether the Department receives federal assistance from the US Department of Transportation, including the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

Americans with Disabilities Act: It is the policy of the Alaska Department of Transportation & Public Facilities (ADOT&PF) that no qualified individual with a disability shall, solely on the basis of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any of its programs, services, or activities as provided by Section 504 of the Rehabilitation Act of 1973and the Americans with Disabilities Act of 1990 (ADA). ADOT&PF further assures that every effort will be made to provide nondiscrimination in all of its programs and activities regardless of the funding source, including FTA, FAA, FHWA, and state funds.

Alaska Department of Transportation and Public Facilities

Copper River Highway Transportation Master Plan

January 26, 2022 Public Open House*

Name	Business or Organization	City (if not Cordova)	Email address	*Gender (M, F, X)	*Race (W, AN/NA, B, H, A, PI, O)
Clifford Olsen					
Nancy Bird			nbird5800@gmail.com	F	W
Tina Hammer					
Lindsey Hammer	PWSEDD		programmanager@pwsedd.org		
JOHN BAENEN	WILSON CONST.		WILSONCJ@AK.NET		
Zachary Smith	Forbes		snowdonsmith@protonmail.com	M	W

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Alaska Department of Transportation and Public Facilities

Copper River Highway Transportation Master Plan

January 26, 2022 Public Open House*

Name	Business or Organization	City (if not Cordova)	Email address	*Gender (M, F, X)	*Race (W, AN/NA, B, H, A, PI, O)
Kevin Johnson	City of Cordova		Planning@cityofcordova.net		
Mark King	Eyak		Mking432@gmail.com	m	AN
Kirsti Jurica	CRWP		Kirsti@copperriver.org		
Leif Stavig			ljstavig@gmail.com	M	W
Denna Stavig			denna.stavig@gmail.com		

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Title VI of The Civil Rights Act of 1964: It is the policy of the Alaska Department of Transportation and Public Facilities (ADOT&PF), in accordance with 49 CFR Part 21 (Department of Transportation Regulations for the Implementation of Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987 (P.L. 100.259)m and 23 CFR Part 200 (Title VI Program and Related Statutes-Implementation and Review Procedures, Executive Order 12250, 23 USC 324 (Prohibition of Discrimination on the Basis of Sex), Title VIII of the Civil Rights Act of 1964m 23 USC 109(h), DOT Order 1050.2, the Civil Rights Restoration Act of 1987m and Executive Order 12898-Environmental Justice, that no person in the State of Alaska shall, on the grounds of race, color, sex, or national origin, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination under any program or activity regardless of whether the Department receives federal assistance from the US Department of Transportation, including the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

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Page 4 of 4

Copper River Highway Transportation Master Plan

Public Open House

January 26, 2022

1

Purpose of Meeting

- DOT&PF wants to work with the community to develop a vision for the Copper River Highway Corridor.
- DOT&PF wants to work with the community to identify issues within the corridor.
- A Master Plan will help the DOT&PF as well as the City and Tribal government secure funding from various sources.

2

What is the Copper River Highway Transportation Master Plan?

- Takes a high-level view of the corridor with a **25-year timeframe.**
- Looks at **multiple modes of transportation**, as well as potential land use changes and economic benefits.
- Identifies **future projects** based on economic, community, land use and other long-term goals.
- **Prioritizes potential projects** using goal-driven criteria.
- Coordinates planning document with the Copper River Highway Planning and Environmental Linkage Study.
- Identifies **potential funding** sources for prioritized projects.

3

Why is the Copper River Highway Transportation Master Plan Important?

- Creates a vision for future use of the CRH.
- Identifies transportation issues and concerns along the CRH.
- Identifies transportation issues and priorities from the community's perspective.
- Supports long-range planning and land use decisions based on community values.
- Identifies potential funding sources and partners.

4

What is the Planning Process for a Master Plan?

- Review existing planning documents and other projects within the CRH study area.
- Document existing conditions.
- Conduct public outreach.
- Develop a vision.
- Develop alternatives.
- Document transportation needs and issues within the study area.
- Evaluate projects based on criteria developed by the planning team.
- Prioritize and recommend projects based on public input and scoring from the evaluation exercise.
- Prepare planning level costs estimates for the recommended projects.
- Prepare a final plan for DOT&PF and the community.

5

Where We Are in the Planning Process

Progress to-date

1. Existing community and transportation plans reviewed.
2. Project criteria developed.
3. Existing corridor conditions documented.

Next Steps

1. Finalize a vison for the CRH.
2. Conduct needs analysis based on public input and existing conditions of CRH.
3. Finalize project evaluation criteria.
4. Continue public outreach.
5. Recommend alternatives for CRH.
6. Recommend top transportation projects for the CRH.
7. Develop cost estimates for the projects identified.
8. Draft final plan.

6

Copper River Highway Transportation Master Plan Schedule and Next Steps

Copper River Highway Transportation Master Plan Schedule

	2021				2022										
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Documentation of Existing Conditions Summary	x	x	x	x												
Advisory Committee Meeting #1					x											
Community Meeting #1					x											
Needs Analysis Summary						x	x	x	x							
Advisory Committee Meeting #2										x						
Community Meeting #2										x						
Needs Analysis and Alternatives Recommendations											x	x				
DRAFT Report												x				
Advisory Committee Meeting #3													x			
Draft Final Report														x	x	
Final Report Submitted to DOT&PF for Approval																x

How to Provide Input and Stay Involved!

- Complete the comment form.
- Meet with one of the planning team members to provide your input on the vision of the CRH and identify transportation issues along the corridor.
- Take the survey: https://arcg.is/1Cri4b0
- Visit DOT&PF's Facebook Page.
- Sign up for our newsletter – email JJessen@crweng.com.

Alaska Department of Transportation and Public Facilities
Judy Chapman
907-451-5150
judy.chapman@alaska.gov
CRW Engineering
Adison Spafford, Planner
907-562-3252
aspafford@crweng.com

Copper River Highway Transportation Master Plan
Comment Form
January 26, 2022

My proposed Vision Statement for the Copper River Highway Corridor

In the future, I would like to see... Road fixed to Million Dollar Bridge / Campground

My suggested Goals for the Copper River Highway Corridor

For Connectivity:

For Recreation: More FS Camp gr Picnic grounds

For Economic Development:

For Our Community:

Other Goal:

Here are project ideas that support my vision and goals for the corridor:

-
- Runway at Million Dollar Bridge
-

Please write additional comments or suggestions on the reverse side of this sheet.

Name: Ralph Bullis

Copper River Highway Transportation Master Plan
Comment Form
January 26, 2022

My proposed Vision Statement for the Copper River Highway Corridor

In the future, I would like to see... Acsse to fifty mile and the forest Service Recrstion Area

My suggested Goals for the Copper River Highway Corridor

For Connectivity:

For Recreation:

For Economic Development: would Help Conduct with income ten-tost

For Our Community:

Other Goal: just Be nice to go for a drive Again

Here are project ideas that support my vision and goals for the corridor:

-
-
-

Please write additional comments or suggestions on the reverse side of this sheet.

Name: Jon Scott

Copper River Highway Transportation Master Plan
Comment Form
January 26, 2022

My proposed Vision Statement for the Copper River Highway Corridor

In the future, I would like to see... ~~F~~ Silver Salmon Stocked at clear creek on CRH

My suggested Goals for the Copper River Highway Corridor

For Connectivity:

For Recreation:

For Economic Development:

For Our Community:

Other Goal:

Here are project ideas that support my vision and goals for the corridor:

-
-
-

Please write additional comments or suggestions on the reverse side of this sheet.

Name: Ralph Bills

Copper River Highway Transportation Master Plan
Comment Form
January 26, 2022

My proposed Vision Statement for the Copper River Highway Corridor

In the future, I would like to see... _____

_____

_____

_____

_____

My suggested Goals for the Copper River Highway Corridor

For Connectivity: _____

_____

For Recreation: _____

_____

For Economic Development: Connect the highway to the Richardson Hwy - Haul ~~less~~ freight and get out to visit family more often

For Our Community: _____

_____

Other Goal: _____

_____

Here are project ideas that support my vision and goals for the corridor:

- _____
- _____
- _____

Please write additional comments or suggestions on the reverse side of this sheet.

Name: _____

Copper River Highway Transportation Master Plan
Youth Engagement
Mr. Sorenson's Class

February 9, 2022
2:45-3:30pm

1

Agenda

1. What is Planning? What is the Process? Why is it important?
2. Copper River Highway Transportation Master Plan Overview.
3. Purpose of Engagement Today.
4. Assignment Overview.

2

What is the Planning Process for a Transportation Master Plan?

1. Identify a problem.
2. Begin the planning process. Set goals with what the planning team is trying to accomplish.
3. Gather data. Review existing planning documents and other projects currently happening within the study area. Conduct public outreach.
4. Document existing conditions and transportation needs and issues within the study area.
5. Evaluate projects based on criteria developed by the planning team.
6. Prioritize and recommend projects based on public input and scoring from the evaluation exercise.
7. Prepare planning level costs estimates for the recommended projects.
8. Prepare a final plan for DOT&PF and the community.

3

What is the Copper River Highway Transportation Master Plan?

- A high-level transportation corridor study, typically with a **25-year timeframe.**
- Develops a long-term vision for the CRH.
- Looks at **multiple modes of transportation**, as well as potential land use changes and economic benefits.
- Identifies **future projects** based on economic, community, land use and other long-term goals.
- **Prioritizes potential projects** using goal-driven criteria.
- Coordinating planning document with the Copper River Highway Planning and Environmental Linkage Study.
- Identifies **potential funding** sources for prioritized projects.

4

Purpose of Youth Engagement

- The DOT&PF is working on a Transportation Master Plan for the Copper River Highway.
- The Copper River Highway (CRH) has transportation issues.
- You are the future leaders of Cordova.
- DOT&PF wants to work with the community (youth and elders) to develop a vision for the CRH.
- A Master Plan may help the DOT&PF as well as the City and Tribal government secure funding from various sources.

5

How to Provide Input and Stay Involved!

➢Complete the comment form.
1. Vision – Please provide a few words regarding how you vision the Copper River Highway in 25 years.
2. Transportation Projects – Please provide ideas for transportation improvements along the CRH i.e., bike paths, turn outs, lighting etc.
3. Maps – Please mark up the project maps. Add transportation concerns or issues, as well as transportation improvement ideas to the map.

➢Sign up for our newsletter – email Jjessen@crweng.com

Alaska Department of Transportation and Public Facilities
Judy Chapman
907-451-5150
judy.chapman@alaska.gov

CRW Engineering
Adison Spafford, Planner
907-562-3252
aspafford@crweng.com

6

E-Newsletters: Electronic newsletters, sent via e-mail, offered an opportunity to provide updates on the project's progress. Hardcopy versions of the newsletter were mailed upon request to individuals without e-mail access. The E-newsletters notified recipients about upcoming public comment opportunities and provided project updates and information.

The Copper River Highway Corridor

The Alaska Department of Transportation and Public Facilities (DOT&PF) is responsible for designing, constructing and maintaining the Copper River Highway for safe and efficient travel. DOT&PF is currently looking at ways to reconstruct, repair, and replaced damaged bridges and culverts between Milepost (MP) 27 and Abercrombie Creek at MP 51...but what else needs to be done?

DOT&PF is launching the Copper River Highway Transportation Master Plan to help the department envision the future of the entire highway corridor, from the ferry terminal to the Million Dollar Bridge. The study will focus on roadway, aviation, riverine, recreational, and other surface improvements.

Here's how you can help:

- Tell us your vision for the highway. How does it serve the community of Cordova in 2047 and beyond?
- What needs can the highway corridor address (e.g., support economic development, improve access to outdoor recreation and subsistence activities, etc.)?
- What projects could help meet those needs?
- Attend the public open house on January 26, 2022 at the Cordova Center.
- Submit your comments Online (link to GIS map survey).

DOT&PF will use this information to develop a long-term strategy for the highway corridor, prioritize projects, and identify potential funding partnerships. A draft Copper River Highway Transportation Master Plan will be available for review and additional comments in Spring 2022.

Get Involved!

What does the future of the Copper River Highway Study Corridor look like? Share your thoughts at the Copper River Highway Transportation Master Plan project kickoff and open house!

Public Open House

When:
Wednesday, January 26, 2022

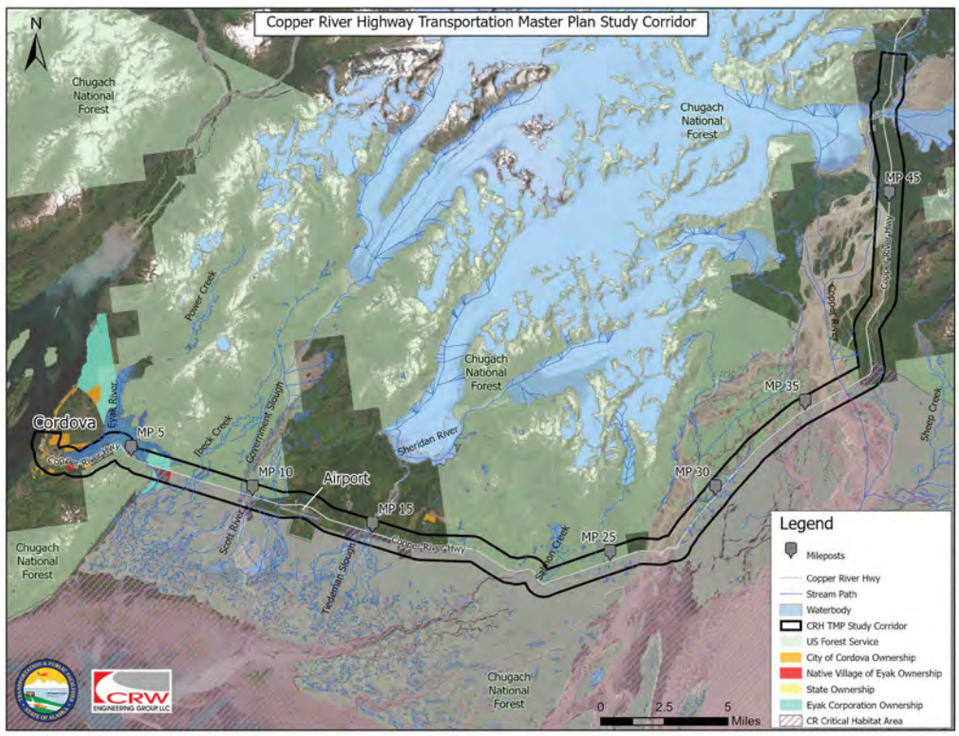
Where:
Cordova Center
601 First Street
Community Room A

Schedule:
Open House - 5:00 - 7:00 p.m.

Presentation - 5:30 p.m.

Copper River Highway Study Corridor Fast Facts

- The Copper River Highway starts at Ferry Terminal Road (MP 0) and ends just past the Million Dollar Bridge (MP 51).
- The highway is classified as a Major Collector roadway up to the Steven Green Bridge (#339) at MP 36, which means it supports moderate traffic capacity with a maximum speed of 55 mph. Between MP 36 and 51, the highway does not have a classified service level.
- DOT&PF's right-of-way extends 150 feet from the highway's center line. Uses of the right-of-way include foot paths, bike paths, frontage roads, pullouts, parking areas, placement of utilities, and other public uses as DOT&PF deems necessary for the welfare of the public.
- The Copper River Highway is a designated Alaska Scenic Byway, which makes it eligible for grant funding to promote the highway's special qualities.



Questions? Comments? Let us know your vision for the Copper River Highway!

DOT&PF Project Manager: Judy Chapman - judy.chapman@alaska.gov
CRW Public Involvement: Julie Jessen - jjessen@crweng.com

The Alaska Department of Transportation and Public Facilities designs, constructs, operates, and maintains the state's transportation infrastructure systems, buildings, and other facilities used by Alaskans and visitors. These include more than 5,600 miles of paved and gravel highways; more than 300 aviation facilities, including 237 airports; 21 harbors; and a ferry system covering 3,500 nautical miles serving 35 coastal communities.

DOT&PF operates all programs without regard to race, religion, color, gender, age, marital status, ability, or national origin. Full Title VI Nondiscrimination Policy: dot.alaska.gov/tvi_statement.shtml. To file a complaint go to: dot.alaska.gov/cvlrts/titlevi.shtml.

The Copper River Highway Corridor

DOT&PF is preparing a Copper River Highway (CRH) Transportation Master Plan to help the department envision the future of the highway corridor from milepost (MP) 0 at the ferry terminal to MP 51 at Abercrombie Creek. The plan focuses on roadway, aviation, riverine, recreational, and other surface improvements. Once complete, DOT&PF, the City of Cordova, the Native Village of Eyak, and others can use the plan to secure funding for projects important to the community.

Where we are now:

Thanks to all who showed up for our January 26, 2022 public open house! We received great input on potential improvements, how people use the highway corridor today, and how they want the corridor to function in the future. We heard about the highway's scenic and historic value, its role in supporting Cordova's economy, and the importance of accessing recreational and other infrastructure past Bridge #339, which is currently closed due to structural issues.

Based on community input, DOT&PF is proposing the following draft CRH vision statement:

The Copper River Highway will be a safe, reliable, multi-modal transportation corridor that provides access to recreational, economic, and cultural activities for community members and visitors alike while sustaining the area's scenic, cultural, and ecological attributes.

The planning team will use this vision to document transportation issues and needs, prioritize community-identified projects, and identify potential alternatives and funding sources.

We want to hear from you!

- Visit the CRH Master Plan web page at https://dot.alaska.gov/nreg/copperriverhighway/
- Submit your project ideas Online at https://arcg.is/1i8GHD0.
- Sign up for future plan updates and meeting announcements by e-mailing jjessen@crweng.com.

Next Steps:

DOT&PF, advised by a local Stakeholder Advisory Committee, will use this information to begin prioritizing critical projects. The ranking criteria and project list will be shared with the community in the draft Copper River Highway Transportation Master Plan later this year.

Address Block

Submit your project ideas today!
https://arcg.is/1i8GHD0

Alaska Department of Transportation
and Public Facilities - Northern Region
2301 Peger Road
Fairbanks, AK 99709

Copper River Highway Study Corridor Fast Facts

- The Copper River Highway starts at Ferry Terminal Road (MP 0) and ends just past the Million Dollar Bridge at Abercrombie Creek (MP 51).
- Uses within DOT&PF's right-of-way include foot paths, bike paths, frontage roads, pullouts, parking areas, placement of utilities, and other public uses as DOT&PF deems necessary for the welfare of the public.
- The Copper River Highway is a designated Alaska Scenic Byway, which makes it eligible for grant funding to promote the highway's special qualities.

Questions? Comments? Tell us how the Copper River Highway corridor can meet Cordova's needs now...and 25 years from now!

DOT&PF Project Manager: Judy Chapman - judy.chapman@alaska.gov
CRW Public Involvement: Julie Jessen - jjessen@crweng.com

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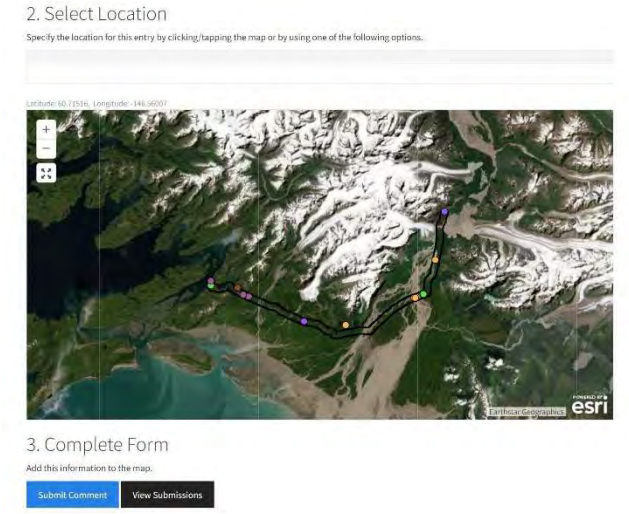
Online Survey: DOT&PF utilized an online survey to gather input from individuals who were not able to attend the public open house. The survey was designed to gauge opinions on issues specific to the corridor and included an open-ended comment section to gather other information that might reflect on the planning process.



Survey Details

The Survey ran from Jan. 2022 to Aug. 31, 2022.

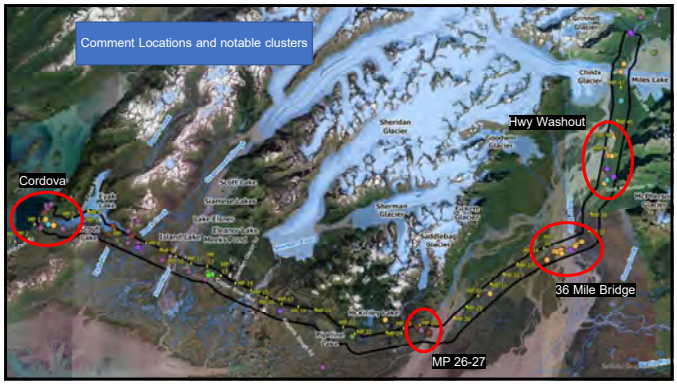
85 responses were received and categorized by Improvement category

Categories:
New Recreation Infrastructure
New Access Points
Commercial Development
Bike/Pedestrian Pathways
Fish/Wildlife Passage
Maintenance Needs
And Other Infrastructure Improvements

1

Results by Category

2



3

Observations

Maintenance is the largest category, followed by Bike/Pedestrian Pathways

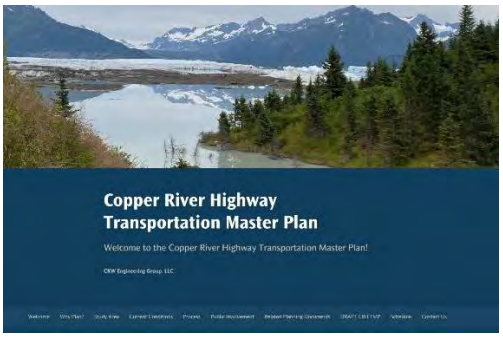
Some of the most common comments included fixing bridges/washouts, snow removal, and trail access

Many comments also recognize the shifting nature of these river channels and warn against major investment in infrastructure without proper controls

Access to both recreation and traditional subsistence areas are priorities

4

Project Web Site/Facebook GIS mapping, surveys, and graphics will be prepared and provided for all meetings and made available via the DOT&PF project website and Facebook throughout the planning process.



Appendix C: Identified Projects and Needs

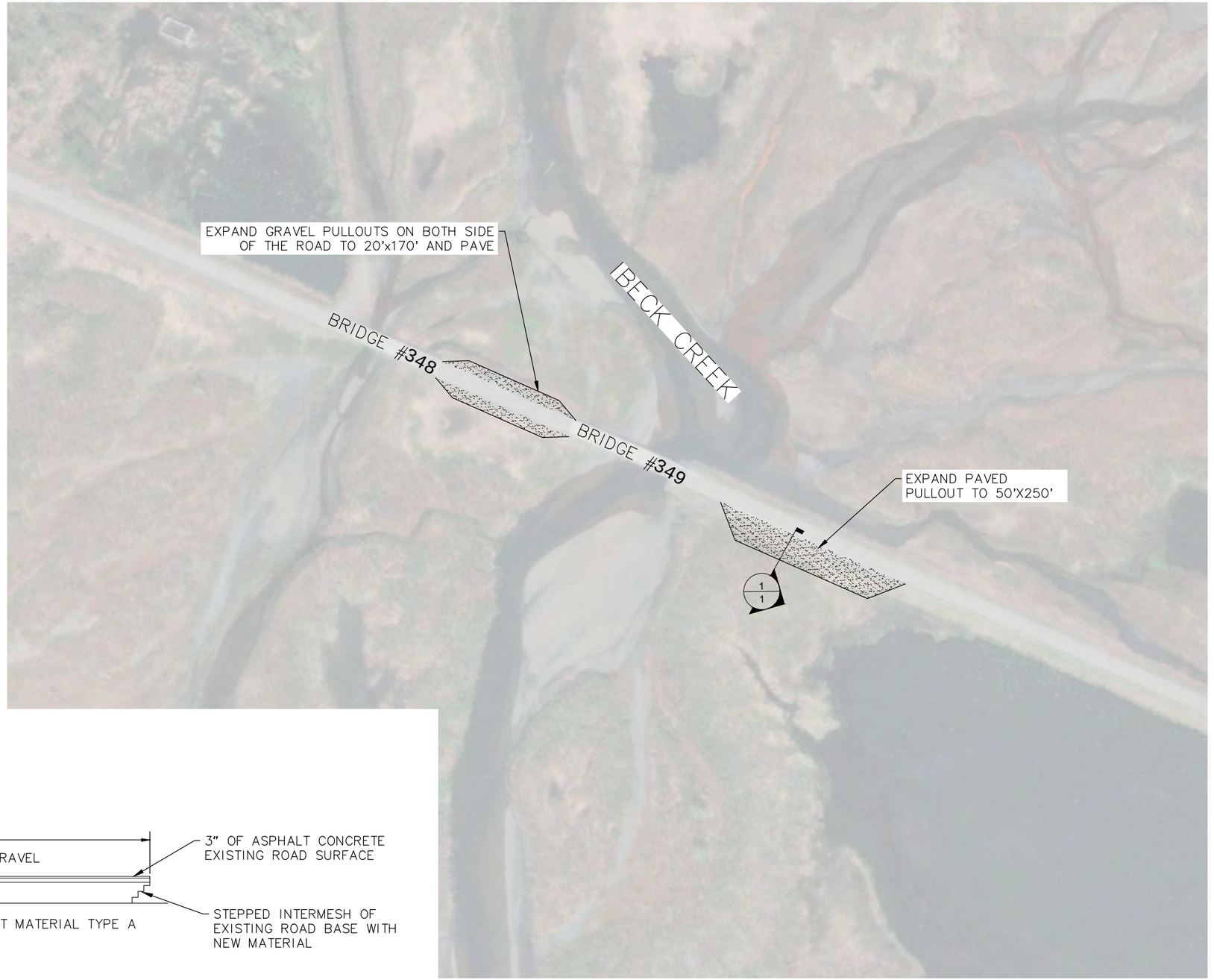
Appendix C

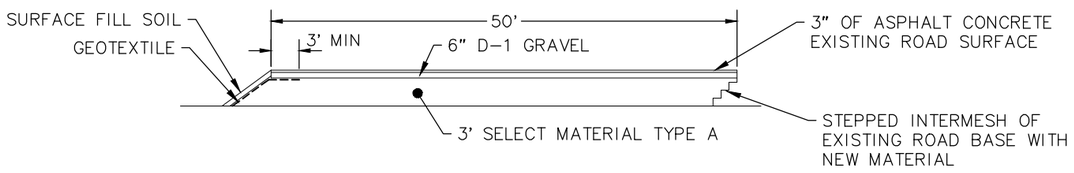
Identified Projects and Needs

Appendix C-1

Estimates and information for Project 1:

Improve parking at Ibeck Creek





1 **ROAD SECTION**
SCALE: N/A

100' 0 100' 200'

PROJECT:	
STATUS:	

CRW ENGINEERING GROUP, INC.
3940 ARCTIC BLVD. SUITE 300
ANCHORAGE, ALASKA 99503
PHONE: (907) 562-3252
#AECL882-AK

PROJECT #1

IMPROVE PARKING AT IBECK CREEK

DATE	06/04/23
SCALE	GRAPHIC
FIGURE	1

File: J:\JobsData\30121.00 Copper River Highway Master Plan\00 CADD 2019\02 Figures\01 DSR\CopperRiver-Highway-FIG1.dwg

Project Title **Project #1: Improve Parking at Ibeck Creek**

Project Description

Widen the existing paved pullout east of Bridge #349 on the south side of the road from 10-feet wide to 50-feet wide (measured from the outer lane-line). Retain the existing length of the pullout at 250-feet long. The new paved parking area east of Bridge #349 will accommodate approximately 25 cars to be parked perpendicular to the road and allows space for a bike path between the parked cars and the road.
Pave and widen the informal pullouts on either side of the road west of Bridge #349 so that they are approximately 20-feet wide by 170-feet long. This will accommodate approximately 12 car parking spaces to parallel park and allow space for a bike path between the parked cars and the road.
These improvements will provide a total of 37 cars to park in the Ibeck Creek fishing vicinity with a buffer from the highway traffic. Number of parking spaces created: 27 Assume we are working within the DOT 150' easement from the center line. Allow for a 10-ft wide multi-purpose pathway.

Estimate Methodology

Using online cinematography, we calculated the required volumes of clearing and barrow to estimate the design of a 300 foot long, 50-foot-wide parking lot over the existing parking area on Ibek creek. This design included 3 feet of compacted select type A material over a cleared and grubbed surface, 6 inches of compacted D-1 gravel over the type A, and 3 inches of asphalt concrete on top. This should bring the parking area to equal elevation with the existing road surface. Erosional geotextile should be run along the exposed embankment of the parking area covering the type A but held in place by a 3-foot interface under the D-1 and asphalt concrete. Surface material such as fill soil should then be layered on top of the geotextile and hydroseeded to provide an anti-erosional and public facing surface. This same process should also be applied to both of the informal 200 foot long 20 feet wide parking areas to the west of Ibeck Creek.

Item	Description	Units	Quantity	Price	Amount	Source of Costs
201.0009.0000	Clearing and Grubbing	SF	25,000.00	2	$ 50,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Roadbut adjusted for current market rate
203.0019.0000	Unclassified Excavation	CY	500.00	35	$ 17,500	2021 DOT Project 00462 Cordova Center Pedestrian Connector (TAP) Bid Tabs. Adjusted
301.0001.00D1	Aggregate Surface Course, Grading D-1	CF	11,500.00	12	$ 138,000	Local quarry quote May 2023
	Aggregate Base Course, Select Material Type A	CF	70,000.00	8	$ 560,000	Local quarry quote May 2023
401.0001.002A	3 " Asphalt Concrete	TONS	450.00	1300	$ 585,000	used high end cost for anchorage
615.0001.0000	Parking Painting and Sighs	LS	1.00	10000	$ 10,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Roadbut
	Soil Fill for Slopes	CF	1,000.00	10	$ 10,000	Local quarry quote May 2023
631.0002.0001	Geotextile, Erosion Control, Class 1	SY	500.00	12	$ 6,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
640.0004.0000	Worker Meals and Lodging, or Per Diem	LS	1.00	20000	$ 20,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs adjusted
641.2000.0000	Pollution Control	LS	1.00	7500	$ 7,500	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
641.0007.0000	SWPPP Manager	LS	1.000	10000	$ 10,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road adjusted
640.0001.0000	Mobilization and Demobilization	LS	1.00	15000	$ 15,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs adjusted
642.0001.0000	Construction Surveying	LS	1.00	25000	$ 25,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
643.0002.0000	Traffic Maintenance	LS	1.00	25000	$ 25,000	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
643.2016.0000	Road Closure	LS	2.00	10000	$ 20,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
618.0001.0000	Seeding	ACRE	1.00	28000	$ 28,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Roadbut
	Subtotal				**$ 1,527,000**	
	Estimating Contingency		25%		$ 382,000	
	Design		10%		$ 153,000	
	Construction Engineering		20%		$ 306,000	
	Indirect Cost Allocation Plan		5%		$ 76,000	
	Estimated Total Cost for Project #1 Improve Parking at Ibeck Creek				**$ 2,500,000**	

Appendix C-2

Estimates and information for Project 2:

Bike path to connect the Cordova Ferry Terminal to Merle K (Mudhole) Smith Airport

Project #2 Multi-use pathway to connect Cordova Ferry Terminal to Merle K (Mudhole) Smith Airport

Project Description Design and build 12 miles of seaparated multi-use pathway including 12 new multi-purpose bridges.

Assumptions This will be a 10-ft wide separated multi-use pathway with 2' shoulders (14-ft wide structural base and 2:1 slopes), including 12 multi-use bridges that are assumed to be 12-feet wide.

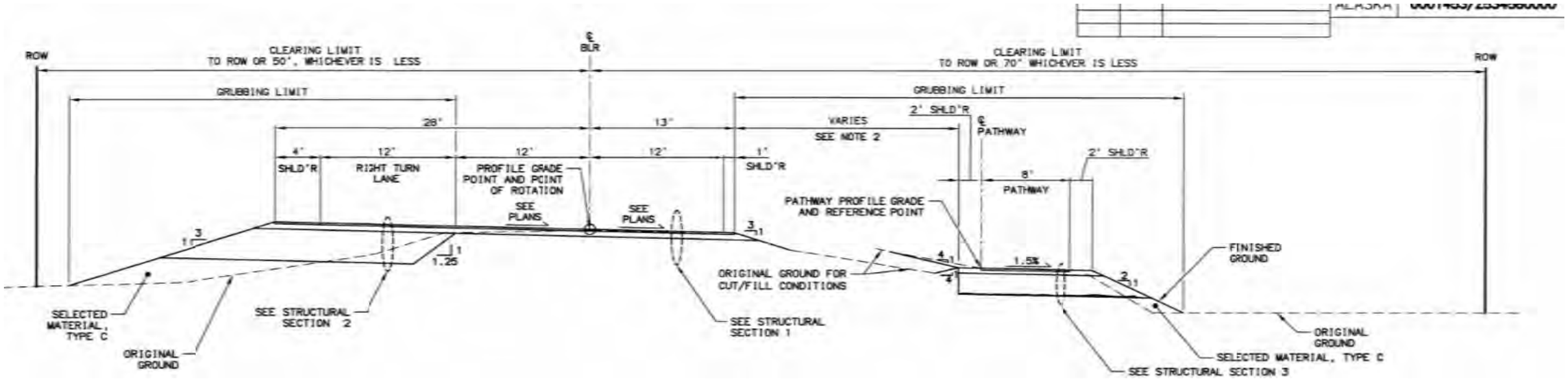
Planning Estimate Development A cost estimate has been developed based on costs taken from bid tabs for the Beaver Loop separated pedestrian walkway (2019) on the Kenai Peninsula, and the cost of multi-purpose bridges was developed based on costs from the Fish Creek pedestrian bridges project (2017).

					Unit	Assumptions/References
Separated Multi-Use Pathway	Separated multi-use pathway			$ 2,848,033	per mile in 2023 dollars	Beaver Loop Separated Pedestrian Walkway costs were used as a basis. Beaver Loop Pathway is 8-ft wide and 3.75 miles long. Beaver Loop project cost $2.4m/mile in 2019 dollars, adjusted for inflation to $2.9m/mile in 2023 dollars. Since the CRH multi-use pathway will be 10' wide instead of 8' wide, the cost per mile from the Beaver Loop project will be multilied by a factor of 9.5/8 to give a unit cost of $2.8m/mile.
	Milage for CRH multi-use pathway			12	miles	
	Cost of CRH multi-use pathway (no bridges)		**Subtotal**	**$ 34,176,398**		
Multi-Use Bridges	Number of bridges to cross			12		Assume the same quantity as vehicle bridges for this stretch of highway.
	Cost per LF of 12-ft wide bridges			$ 3,000	per LF	Calculated from Fish Creek multi-use pathway bids, adjusted for inflation from 2017 to 2023 dollars.
	Total length of all bridges			2,157	feet	Assumes the multi-use bridges are the same length as existing vehicle bridges.
	Base Cost Per Bridge			$ 207,000		Calculated from Fish Creek multi-use pathway bids, adjusted for inflation from 2017 to 2023 dollars.
			Subtotal	**$ 8,955,000**		Equal to 2,157 feet of bridge at $2k per LF, and 12 bridges at $167k per bridge.
			Construction Subtotal	**$ 43,132,000**		
Markups	Estimating Contingency	30%		$ 12,940,000		
	Design	10%		$ 4,314,000		
	Construction Engineering	20%		$ 8,627,000		
	Indirect Cost Allocation Plan	5%		$ 2,140,000		
Estimated Total Cost (Project #2 Multi-Use Pathway)				**$ 72,000,000**		

Beaver Loop Bids

Pathway 8-ft widfe and 3.75 miles long,	Kenai Peninsula		
Location	Central Kenai Peninsula		
Width of pathway	8 ft		
Length	3.75 miles		
Date of Bids	March 2019		
Engineer's Bid	$ 9,152,486		
Contractor(2) Bids Average	$ 8,993,789	$ 2,398,344	per mile in 2019 dollars
Contractor(2) Bids Average		$ 2,861,757	per mile in 2023 dollars

Assumed design for the Copper River Highway bike path, based on the 2019 Beaver Loop Pedestrian Walkway Design



Bridge Widening Cost

Assume cost of widening bridge 4' to add bike lane is $ 5,000 per LF

And it costs this much extra for each bridge $ 10,000

Bridges Between MP 0 and MP 13

#		Name	Name	River	Milepost	Length (ft)	Width (inches)	Existing shoulder width in inches on each side of road (inches) = (Width-24 inches)/2	Additional bike width required for a total of 4ft	Year Built	Bridge Cost Estimate
1	381	Marie Smith Jones	Eyak River		5.7	255	24.3	0.15	3.99	1954	$ 1,285,000
2	348	Michael Dean Banta			7.6	162	27.9	1.95	3.84	1966	$ 820,000
3	349	Scott Clacier No. 2			7.7	212	28.2	2.1	3.83	1966	$ 1,070,000
4	350	Warren Allen Paulsen			8.1	162	27.9	1.95	3.84	1966	$ 820,000
5	351	Scott Clacier No. 4			8.5	62	28.2	2.1	3.83	1966	$ 320,000
6	352	David Allen Lape			9.2	62	28.2	2.1	3.83	1966	$ 320,000
7	406	Scott Glacier No. 6			9.5	402	28.2	2.1	3.83	1966	$ 2,020,000
8	407	Scott Glacier No. 7	David Henry Ellsovsky		9.7	182	28.2	2.1	3.83	1966	$ 920,000
9	408	Scott Glacier No. 8			10	162	28.2	2.1	3.83	1966	$ 820,000
10	409	Scott Glacier No. 9	Leonard F. Olsen		10.4	82	28.2	2.1	3.83	1966	$ 420,000
11	410	Scott Glacier No. 10			10.8	52	28.2	2.1	3.83	1966	$ 270,000
12	411	Norman D. Osborne			11	362	28.2	2.1	3.83	1966	$ 1,820,000
TOTAL						**2157**				Total	$ 10,905,000

Milepost	Average Daily Total of vehicle traffic (from alaskatrafficdata.drakewell.com) estimated for 2022 from August 2018 data
0	1070
1	980
2	2500
3	1370
4	1190
5	1190
6	1190
7	1190
8	1190
9	560
10	560
11	560
12	560
13	560

Appendix C-3

Estimates and information for Project 3:

Replace Bridges #339 and Bridge #340
with a new bridge around milepost 36.

Design Criteria

CRH is classified as a Major Collector roadway up to Bridge #339 at MP 36, which means it supports moderate traffic capacity with a maximum speed of 55mph. After MP 339 Copper River Highway is classified as "Not Functionally Classified"

Design of Preferred Bridge Alternative from 2023 Draft PEL:

Alternative 2 is the Preferred Alternative. The DOT&PF considered this alternative in 2014, in conjunction with The National Constructors' Group (NCG), who was contracted by the DOT&PF to assist in analyzing its constructability and costs. NCG's report, titled Constructability Analysis Report Copper River Highway NBI #339, dated February 11, 2014 is on file at DOT&PF's Northern Region office and is available upon request.

Alternative 2's design proposes a new bridge that is 1,400 feet long. It consists of 14 spans having distances of 100 feet each. There are 15 piers, each pier consists of two 4 feet diameter driven pipe pile that are 150' in length with a precast concrete pile cap. The superstructure consists of precast concrete box girders having dimensions of 3.5 feet wide by 5 feet deep. NBI #339 and NBI #340 would be demolished as part of his alternative because they are within DOT&PF ROW where the new bridge would need to be constructed. In addition, these two bridges are no longer used and are within a listed USCG and USACE navigable waterway.

In order to build Alternative 2, it's proposed that two construction access trestles be constructed along the same alignment as the proposed replacement bridge, one trestle on each side of bridge. The trestles would include rails for the primary hoisting equipment to travel on, which would be a 225 -ton straddle carrier gantry crane. As segments of the permanent bridge superstructure are completed those segments will providing the access road required for all material handling. Using this method of construction would allow the new bridge and its associated trestles to remain inside DOT&PF's ROW.

Cost Info From the 2023 Draft PEL:

In 2014, the cost of Alternative 2 was estimated at $36,000,000. However, this estimate did not include the costs for the bridge abutment slopes protection, soil investigation, design and construction inspections, nor did it include a costs estimate for the demolitions of NBI #339 and NBI #340.

There were three options proposed for the protection of the bridge abutment slopes.

1. *Install sheet pile walls; 2014 cost estimate was $8,065,770.*
2. *Install riprap; 2014 cost estimate was $2,433,390.*
3. *Install concrete blocks (dolos); 2014 cost estimate was $4,800,000.*

Of the three options for protection of the bridge abutments, presented above, the DOT&PF believes installation of riprap (Option 2) is the most feasible.

In concerns to the demolitions of NBI #339 and NBI #340, given their relatively remote locations, the DOT&PF anticipates that the general cost estimates would be approximately $1,000,000/100 feet. NBI #339 is 401-feet long and NBI #340 is 241-feet long, thus $6,420,000. However, if the necessary equipment is already mobilized to this site for the construction of the new bridge then their demolition costs would be considerably lower.

Project Title **Project #3 Replace NBI #339 and NBI #340 with a new, single-span bridge**

Project Description Remove and replace existing failed bridge 339 with new 30-ft wide bridge, 1600 feet long, 2 pile per 100 feet, 14 pier units, and 2 abutments.

Details: For this masterplan a 1600-foot-long bridge has been estimated. The bridge will have 14 pile units using two, 4-foot-wide piles and two abutments using the sheet pile, drive, fill, riprap, and remove method. These spans are composed of 100-foot precast concrete members atop pile caps and decked with a concrete surface and guardrails. Ten ice guards of would be attached to the upstream side of the pier piles under the most flow and the riverbank and abutments would all receive Class 1 riprap and spotted geotextile to reduced erosion. NBI #339 and NBI #340 will be demolished.
The DOT's PEL (2023 draft) described the preferred alternative recommended a similar replacement bridge of 1,400 feet length with fourteen 100-feet spans founded upon 15 piers consisting of a two 4-foot diameter driven pipe pile that are 150-feet in length with a precast concrete pile cap. The superstructure consists of precast concrete box girders having dimensions of 3.5 feet wide by 5-feet deep. The scope also included the demolishing of NBI #339 and NBI #340. The 2019 PEL cost for this project was $64m in 2014 dollars.

Item	Description	Units	Quantity	Price in 2023 dollars	Amount	Source of Costs
202.0001.0000	Removal of Structures and Obstructions from Old Bridge	LS	1.00	7,713,000	7,713,000	2019 draft CRH PEL
201.0009.0000	Clearing and Grubbing	ACRE	6.00	23,700	142,200	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
203.0019.0000	Unclassified Excavation	CY	2,000.00	22	44,000	2021 DOT Project 00462 Cordova Center Pedestrian Connector (TAP) Bid Tabs
505.0009.0000	Sheet pile Abutments Install and Removal	Each	35.00	11,800	413,000	Wendell Avenue Bridge Replacement
203.0005.000A	Sheet pile Fill, Select Type A	CY	1,000.00	216	216,000	Local quarry quote May 2023
505.MF02.2402	Abutment Piles with Crane and Install	Each	12.00	32,000	384,000	Scaled up 2' up to 4' cost (multiplied $15k per pier by 2 and added $2k for shipping per pier) from 2020 AUKE BAY FERRY TERMINAL MODIFICATIONS & IMPROVEMENTS
505.MF02.2403	Pier Piles with Crane and Install	Each	84.00	32,000	2,688,000	Scaled up 2' up to 4' cost (multiplied $15k per pier by 2 and added $2k for shipping per pier) from 2020 AUKE BAY FERRY TERMINAL MODIFICATIONS & IMPROVEMENTS
	Pile Caps and Headers	Each	32.00	10,000	320,000	
501.0007.0000	Precast Concrete Member 99'	Each	32.00	200,000	6,400,000	2022 QUARTZ CREEK BRIDGE REPLACEMENT ($110k), adjusted for Cordova remoteness factor.
510.2000.0000	Decking	SF	54,000.00	200	10,800,000	2021 Seward Highway, MP 75-90 Ingram Creek to Girdwood Road and Bridge Rehabilitation, Phase II; Portage Curve Multimodal Connector. Ingram Creek project was for deck repair, we have increased the unit cost for deck replacement.
501.0004.0000	Deck Paving	CY	700.00	2,600	1,820,000	2021 Sterling Highway MP 45-60 Sunrise to Skilak Lake Rd CM/GC; Stages 3 & 4 Early Work Package
507.2000.0000	Guardrails	LF	3,600.00	325	1,170,000	2023 SEWARD HIGHWAY MP 0-8 PAVEMENT PRESERVATION
	H and H, 2 Dimensional Analysis	LS	1.00	120,000	120,000	
611.0001.0001	Riprap, Class I	CY	20,000.00	250	5,000,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
631.0002.0001	Geotextile, Erosion Control, Class 1	SY	12,500.00	22	275,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
640.0004.0000	Worker Meals and Lodging, or Per Diem	LS	1.00	168,000	168,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
641.2000.0000	Pollution Control	LS	1.00	28,000	28,000	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
641.0007.0000	SWPPP Manager	LS	1.000	120,000	120,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
615.0001.0000	Standard Sign	LS	1.00	5,000	5,000	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
640.0001.0000	Mobilization and Demobilization	LS	1.00	1,000,000	1,000,000	Estimated for this project.
642.0001.0000	Construction Surveying	LS	1.00	56,000	56,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
643.2016.0000	Road Closure	LS	1.00	11,000	11,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0001.0000	Field Office	LS	1.00	112,000	112,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
		Subtotal			**39,100,000**	
		Estimating Contingency	30%		11,730,000	
		Design	10%		3,910,000	
		Construction Engineering	20%		7,820,000	
		Indirect Cost Allocation Plan	5%		1,940,000	
	Estimated Total Cost Project #3 Replace NBI #339 and #340				**65,000,000**	

Appendix C-4

Estimates and information for Project 4:

Reinstate access to subsistence and recreational areas past 52 Mile

Project #4: Reinstate access to subsistence and recreational areas past MP 52

Project Scope: Replace Bridge #339 and #340 at mile 35.5 (Project #3 of this masterplan), Reroute and replace Copper River Highway from MP 38 to MP 44, Replace 9 culverts with fish passage culverts between MP 36 to 45, Repairs to The Million Dollar Bridge at MP 48.

Description	Units	Quantity		Price		Amount
Million Dollar Bridge Repairs	LS	1	$	196,000,000	$	196,000,000
Bridge #339 and #340 Replacement	LS	1	$	52,000,000	$	52,000,000
Road repairs MP 43.5 to 44	LS	1	$	24,000,000	$	24,000,000
Road repairs MP 38 to 48	LS	1	$	12,000,000	$	12,000,000
Replace culverts between MP 39 and 42	CY	9	$	1,200,000	$	10,800,000
Subtotal					**$**	**294,800,000**
Estimating Contingency (already added for each line item)						-
Design	10%					29,480,000
Construction Engineering	20%					58,960,000
Indirect Cost Allocation Plan	5%					14,740,000
Estimated Total Cost (Project #4 Reinstate access to MP 52)					**$**	**325,000,000**

Sub-Project of Project #4: **Million Dollar Bridge Repairs**

Project Description This work includes replacing Ice Breaker Number 1 and upgrading Ice Breaker Number 2. Pier 1 and 2 will undergo seismic upgrades and their caissons will be grouted. Cracking and spalling of Abutment 1 will be repaired. Damaged chords, laterals, bolts, tie rods, and corbels will be replaced. Lead-based paint on the bridge will be abated and the bridge will be repainted.

Item	Description	Units	QTY	Price	Amount	Source of Costs
201.0009.0000	Clearing and Grubbing	ACRE	4	20,000	80,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
202.0001.0000	Removal of Structures and Obstructions	LS	1	20,000	20,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
203.0019.0000	Unclassified Excavation	CY	1,000	100	100,000	2021 DOT Project 00462 Cordova Center Pedestrian Connector (TAP) Bid Tabs
301.0004.00E1	Aggregate Surface Course, Grading E-1	CY	50	60	3,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
301.0002.00D1	Aggregate Base Course, Grading D-1	CY	300	234	70,200	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
611.0001.0003	Riprap, Class III	CY	500	269	134,500	QUARTZ CREEK BRIDGE REPLACEMENT
	Peir 1 Ice Breaker	LS	1	25,000,000	25,000,000	2014 PER
	Peir 2 Ice Breaker	LS	1	10,000,000	10,000,000	2014 PER and quote for drillstring and drilling efforts
	Perir 1 and 2 caisson grouting	LS	2	15,000,000	30,000,000	2014 PER
	Seismic Retrofit and realignment for Peir 1 and 2	LS	2	20,000,000	40,000,000	
	Repair of cracking, spalling, and adjustment of Abutment 1	LS	1	4,000,000	4,000,000	
	Replacement of missing and damaged chords, laterals, bolts, tierods, and corbels	LS	1	5,000,000	5,000,000	
	Lead abatment and Painitng	LS	1	15,000,000	15,000,000	
631.0002.0001	Geotextile, Erosion Control, Class 1	SY	500	12	6,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
640.0004.0000	Worker Meals and Lodging, or Per Diem	LS	1	200,000	200,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
641.2000.0000	Pollution Control	LS	1	55,000	55,000	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
641.0007.0000	SWPPP Manager	LS	1	150,000	150,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
640.0001.0000	Mobilization and Demobilization	LS	1	250,000	250,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
642.0001.0000	Construction Surveying	LS	1	45,000	45,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0001.0000	Field Office	LS	1	35,000	35,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
	Subtotal				**$ 130,149,000**	
	Estimating Contingency 50%				65,075,000	
	Subtotal for Million Dollar Bridge Repairs				**$ 196,000,000**	

Sub-Project of Project #4: **Repairs to highway at MP 38 to 43**

Project Description Raise Roadway up 5 feet from MP 38 to 43, 2 to 1 slopes and 30 foot driving surface.

Item	Description	Units	Quantity	Price	Amount	Source of Costs
201.0009.0000	Clearing and Grubing	ACRE	$ 24	$ 20,000	$ 480,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
203.0019.0000	Unclassified Excavation	CY	$ 2,500	$ 100	$ 250,000	2021 DOT Project 00462 Cordova Center Pedestrian Connector (TAP) Bid Tabs
301.0004.00E1	Aggregate Surface Course, Grading E-1	CF	$ 132,000	$ 5	$ 689,040	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
203.0007.0000	Borrow	CY	$ 3,500	$ 60	$ 210,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
	Aggregate Base Course, Select Material Typ	CF	$ 1,394,826	$ 3	$ 4,184,478	Local quarry quote May 2023
301.0002.00D1	Aggregate Base Course, Grading D-1	CF	$ 264,000	$ 7	$ 1,742,400	Cordova Center Pedestrian Connector (TAP)
611.0001.0003	Riprap, Class III	CY	$ 4,000	$ 269	$ 1,076,000	QUARTZ CREEK BRIDGE REPLACEMENT
631.0002.0001	Geotextile, Erosion Control, Class 1	SY	$ 22,000	$ 12	$ 264,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
640.0004.0000	Worker Meals and Lodging, or Per Diem	LS	$ 1	$ 50,000	$ 50,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
641.2000.0000	Pollution Control, Fish Passage, H&H	LS	$ 1	$ 100,000	$ 100,000	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
641.0007.0000	SWPPP Manager	LS	$ 1	$ 50,000	$ 50,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
640.0001.0000	Mobilization and Demobilization	LS	$ 1	$ 100,000	$ 100,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
642.0001.0000	Construction Surveying	LS	$ 1	$ 50,000	$ 50,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
643.2016.0000	Road Closure	LS	$ 1	$ 10,000	$ 10,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0001.0000	Field Office	LS	$ 1	$ 25,000	$ 25,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0006.0000	Vehicle	LS	$ 1	$ 15,000	$ 15,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0016.0000	Storage Container	EACH	$ 4	$ 15,000	$ 60,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
	Subtotal				**$ 9,355,918**	
	Estimating Contingency 25%				2,339,000	
	Subtotal for Repairs to Highway MP 38 to MP 43				**$ 12,000,000**	

Sub-Project of Project #4: **Repairs to highway at MP 43.5 to 44**

Project Description Construct a new road 3.1 miles long, 5 feet above ground surface, 30 feet wide driving surface, 2 to 1 slopes, 5 culverts

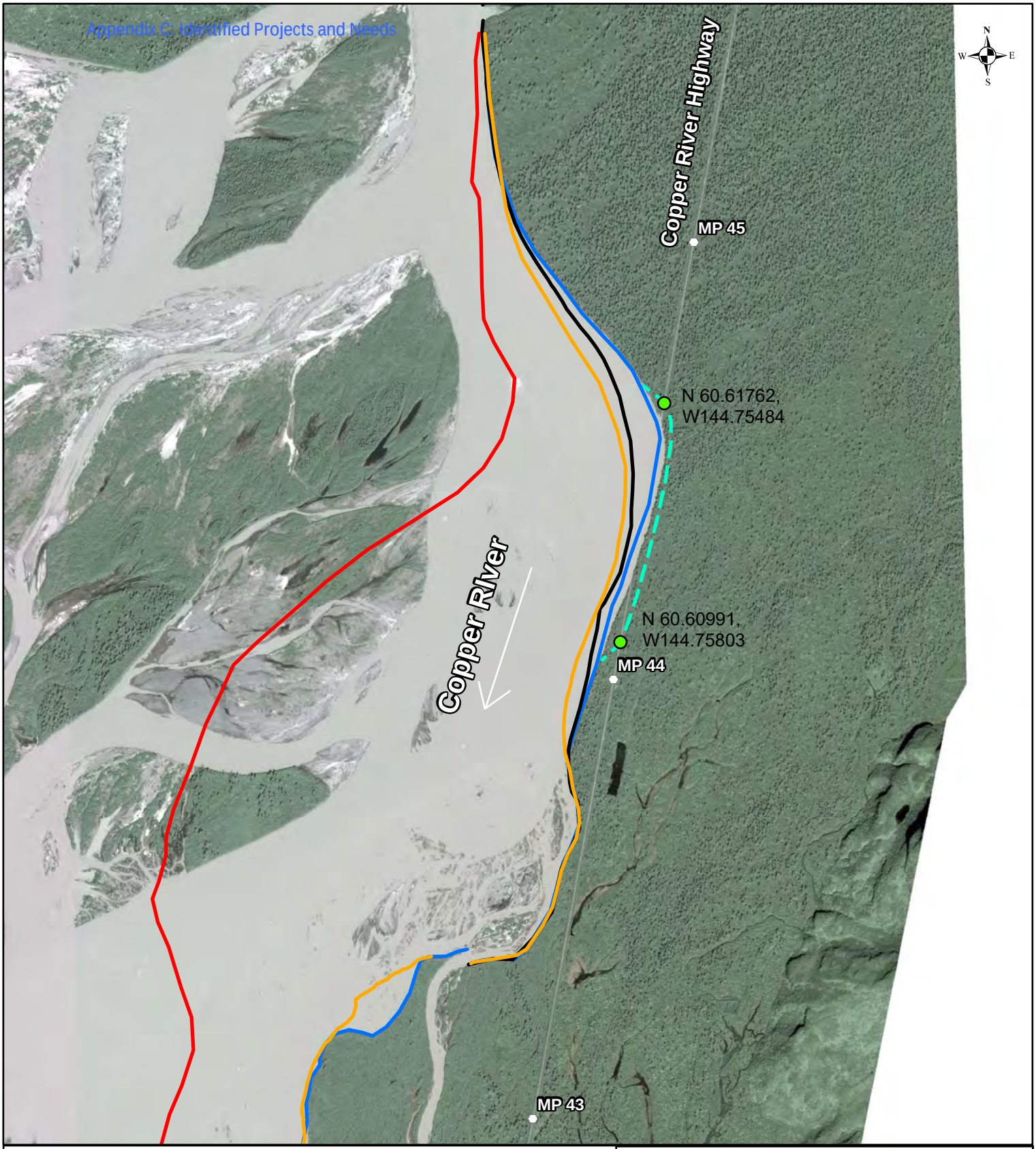
Item	Description	Units	Quantity	Price		Amount	Source of Costs
201.0009.0000	Clearing and Grubing	ACRE	40	20,000	$	800,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
203.0019.0000	Unclassified Excavation	CY	50,000	100	$	5,000,000	2021 DOT Project 00462 Cordova Center Pedestrian Connector (TAP) Bid Tabs
301.0004.00E1	Aggregate Surface Course, Grading E-1	CF	163,380	5	$	852,844	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
203.0007.0000	Borrow	CY	25,000	60	$	1,500,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
	Aggregate Base Course, Select Material Type A	CF	2,373,360	3	$	7,120,080.00	Local quarry quote May 2023
301.0002.00D1	Aggregate Base Course, Grading D-1	CF	326,760	7	$	2,156,616	Cordova Center Pedestrian Connector (TAP)
631.0002.0001	Geotextile, Erosion Control, Class 1	SY	14,000	12	$	168,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
640.0004.0000	Worker Meals and Lodging, or Per Diem	LS	1	50,000	$	50,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
641.2000.0000	Pollution Control, Fish Passage Consultant, H&H Consultant	LS	1	100,000	$	100,000	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
641.0007.0000	SWPPP Manager	LS	1	50,000	$	50,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
640.0001.0000	Mobilization and Demobilization	LS	1	100,000	$	100,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
642.0001.0000	Construction Surveying	LS	1	75,000	$	75,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
643.2016.0000	Road Closure	LS	1	10,000	$	10,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0001.0000	Field Office	LS	1	25,000	$	25,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0006.0000	Vehicle	LS	1	15,000	$	15,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0016.0000	Storage Container	EACH	4	15,000	$	60,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
	Subtotal				**$**	**19,000,000**	
	Estimating Contingency 25%					4,750,000	
	Subtotal for Repairs to Highway MP 43.3 to MP 44				**$**	**24,000,000**	

Sub-Project of Project #4: **Project #3 Replace NBI #339 and NBI #340 with a new, single-span bridge**

Project Description Remove and replace existing failed bridge 339 with new 30-ft wide bridge, 1600 feet long, 2 pile per 100 feet, 14 pier units, and 2 abutments.

Details: For this masterplan a 1600-foot-long bridge has been estimated. The bridge will have 14 pile units using two, 4-foot-wide piles and two abutments using the sheet pile, drive, fill, riprap, and remove method. These spans are composed of 100-foot precast concrete members atop pile caps and decked with a concrete surface and guardrails. Ten ice guards of would be attached to the upstream side of the pier piles under the most flow and the riverbank and abutments would all receive Class 1 riprap and spotted geotextile to reduced erosion. NBI #339 and NBI #340 will be demolished.
The DOT's PEL (2023 draft) described the preferred alternative recommended a similar replacement bridge of 1,400 feet length with fourteen 100-feet spans founded upon 15 piers consisting of a two 4-foot diameter driven pipe pile that are 150-feet in length with a precast concrete pile cap. The superstructure consists of precast concrete box girders having dimensions of 3.5 feet wide by 5-feet deep. The scope also included the demolishing of NBI #339 and NBI #340. The 2019 PEL cost for this project was $64m in 2014 dollars.

Item	Description	Units	Quantity	Price in 2023 dollars	Amount	Source of Costs
202.0001.0000	Removal of Structures and Obstructions from Old Bridge	LS	1.00	7,713,000	7,713,000	2019 draft CRH PEL
201.0009.0000	Clearing and Grubbing	ACRE	6.00	23,700	142,200	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
203.0019.0000	Unclassified Excavation	CY	2,000.00	22	44,000	2021 DOT Project 00462 Cordova Center Pedestrian Connector (TAP) Bid Tabs
505.0009.0000	Sheet pile Abutments Install and Removal	Each	35.00	11,800	413,000	Wendell Avenue Bridge Replacement
203.0005.000A	Sheet pile Fill, Select Type A	CY	1,000.00	216	216,000	Local quarry quote May 2023
505.MF02.2402	Abutment Piles with Crane and Install	Each	12.00	32,000	384,000	Scaled up 2' up to 4' cost (multiplied $15k per pier by 2 and added $2k for shipping per pier) from 2020 AUKE BAY FERRY TERMINAL MODIFICATIONS & IMPROVEMENTS
505.MF02.2403	Pier Piles with Crane and Install	Each	84.00	32,000	2,688,000	Scaled up 2' up to 4' cost (multiplied $15k per pier by 2 and added $2k for shipping per pier) from 2020 AUKE BAY FERRY TERMINAL MODIFICATIONS & IMPROVEMENTS
	Pile Caps and Headers	Each	32.00	10,000	320,000	
501.0007.0000	Precast Concrete Member 99'	Each	32.00	200,000	6,400,000	2022 QUARTZ CREEK BRIDGE REPLACEMENT ($110k), adjusted for Cordova remoteness factor.
510.2000.0000	Decking	SF	54,000.00	200	10,800,000	2021 Seward Highway, MP 75-90 Ingram Creek to Girdwood Road and Bridge Rehabilitation, Phase II; Portage Curve Multimodal Connector. Ingram Creek project was for deck repair, we have increased the unit cost for deck replacement.
501.0004.0000	Deck Paving	CY	700.00	2,600	1,820,000	2021 Sterling Highway MP 45-60 Sunrise to Skilak Lake Rd CM/GC; Stages 3 & 4 Early Work Package
507.2000.0000	Guardrails	LF	3,600.00	325	1,170,000	2023 SEWARD HIGHWAY MP 0-8 PAVEMENT PRESERVATION
	H and H, 2 Dimensional Analysis	LS	1.00	120,000	120,000	
	Ice Guards	Each	10.00	80,000	800,000	
611.0001.0001	Riprap, Class I	CY	20,000.00	250	5,000,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
631.0002.0001	Geotextile, Erosion Control, Class 1	SY	12,500.00	22	275,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
640.0004.0000	Worker Meals and Lodging, or Per Diem	LS	1.00	168,000	168,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
641.2000.0000	Pollution Control	LS	1.00	28,000	28,000	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
641.0007.0000	SWPPP Manager	LS	1.000	120,000	120,000	2019 Northern Region River Encroachment Repairs - Cordova Eyak Lake Road
615.0001.0000	Standard Sign	LS	1.00	5,000	5,000	2023 DOT Cordova Project - Orca Road Winter Storm Repairs Bid Tabs
640.0001.0000	Mobilization and Demobilization	LS	1.00	1,000,000	1,000,000	Estimated for this project.
642.0001.0000	Construction Surveying	LS	1.00	56,000	56,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
643.2016.0000	Road Closure	LS	1.00	11,000	11,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
644.0001.0000	Field Office	LS	1.00	112,000	112,000	2021 Copper River Highway MP 21.5 Culvert Replacement bid tabs
		Subtotal			**39,900,000**	
	Estimating Contingency		30%		11,970,000	
	Subtotal for replacement of NBI #339 and #340				**52,000,000**	



NOTE: Imagery acquired June 29, 2019

0 500 1,000 2,000 Feet

Legend

- July 1982 River Edge
- July 21, 2011 River Edge
- September 30, 2016 River Edge
- September 30, 2018 River Edge
- September 4, 2019 River Edge

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2301 Peger Road Fairbanks, AK 99709

Chronology of Channel Migration Near MP 43-MP 45

DATE: December 2019

FIGURE 2

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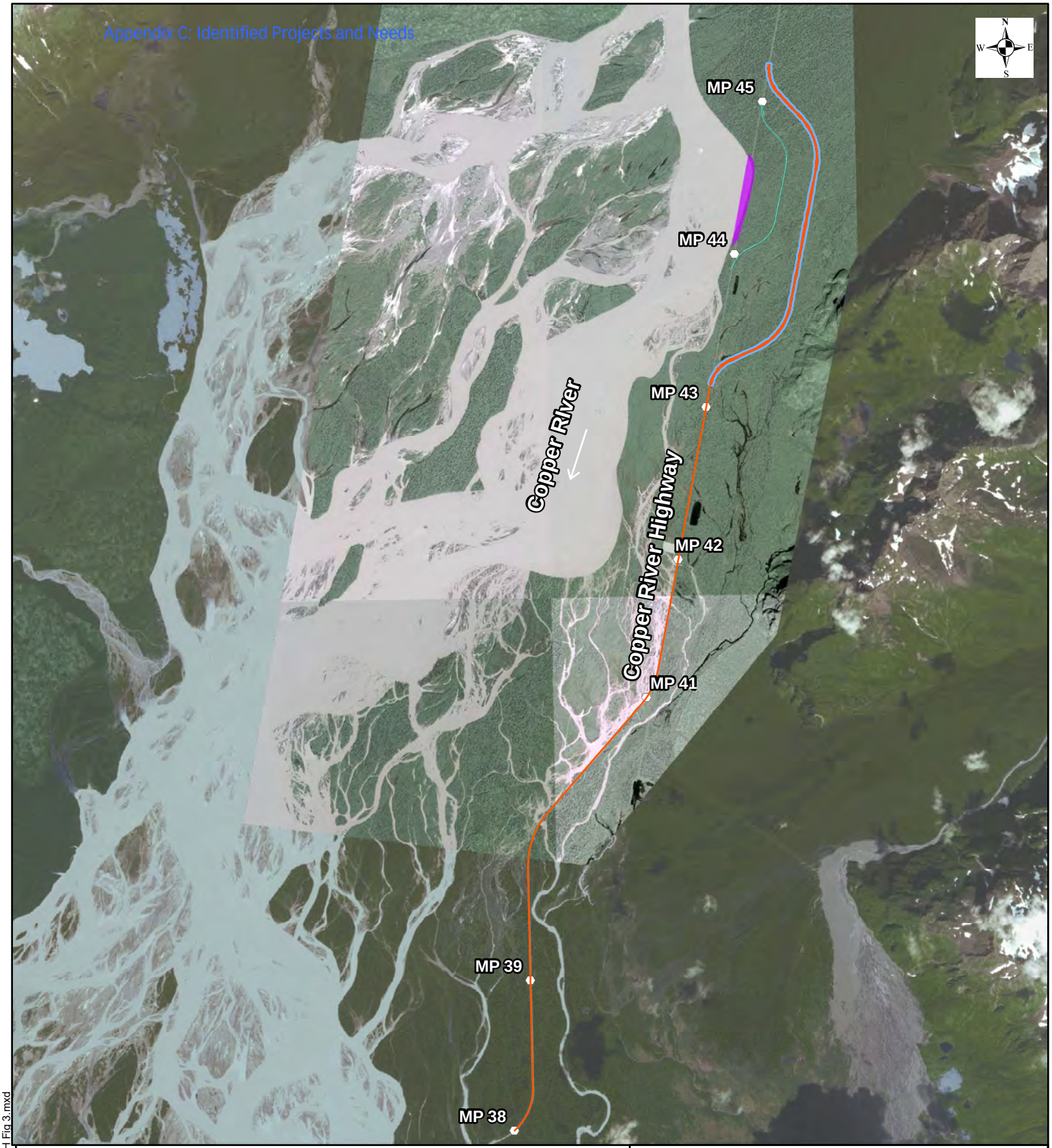

Legend

- Alt 1 - Reestablish ROW
- Alt 2 - Realign Road
- Alt 3 - Realign Road
- Alt 4 - Raise Grade of Road and Realign

0 0.5 1 Miles

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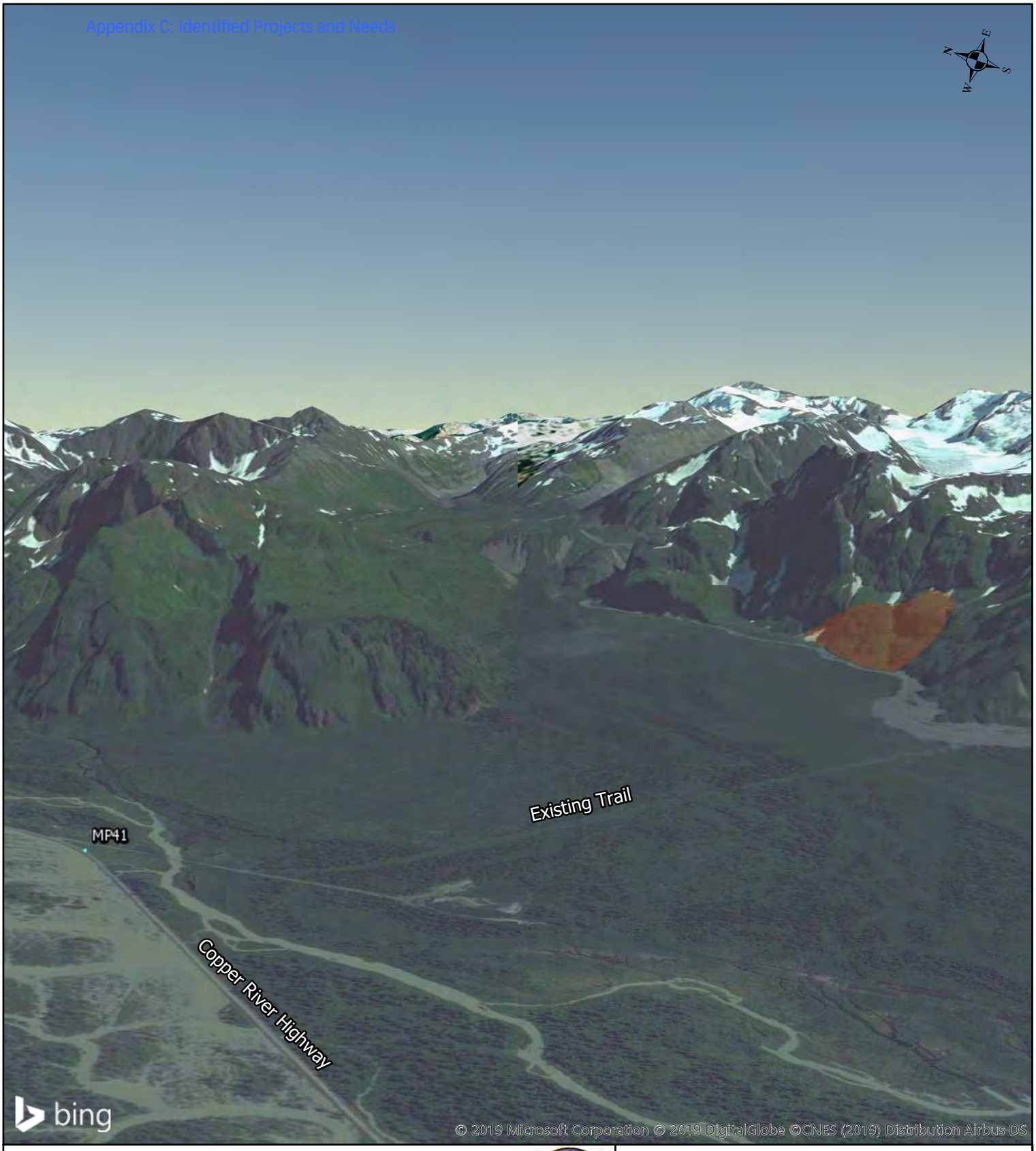
2301 Peger Road Fairbanks, AK 99709

Preliminary Alternatives

DATE: November 2019

FIGURE 3

Document Path: C:\Users\lmaybrier\Desktop\CRH Fig 3.mxd



0 125 250 500 Feet

Legend
Granite Outcrop

STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Road Fairbanks, AK 99709

Potential Material Site

December 2019 | Figure 7

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Appendix C-5

Estimates and information for Project 5:

Replace Failing Culverts and culverts inhibiting fish passage

Project Title **Project #5 Replace Culverts Inhibiting Fish Passage**

Project Description

This estimate uses the ADFG's culvert classification system to identify culverts needing fish passage restoration. It is assumed that culverts with red and grey classifications are barriers to fish passage and will be replaced with fish friendly culverts. This project will have two phases, Phase I will replace culverts with a red classification, and Phase II will replace culverts with a grey classification. Replacement culverts are assumed to be box culverts or arch culverts that are sized for fish passage and installed with sufficient habbitat considerations to allow for successful fish passage. The assumed design and costs will allow for the Copper River Watershed Project's preferred designs. Bid tabs and estimates from three culvert replacement projects done in 2022 and 2023 along the Copper River Highway were used in the development of these estimates.

Phase	Description	Units	Quantity	Price		Amount
I: 'Red' culverts	New 0' to 10'-wide fish passage culvert	EA	7	1,000,000	$	7,000,000
	New 10' to 20'-wide fish passage culvert	EA	13	1,200,000	$	15,600,000
	New 20' to 30'-wide fish passage culvert	EA	6	1,300,000	$	7,800,000
	New >30'-wide fish passage culvert	EA	1	1,500,000	$	1,500,000
	Phase I Subtotal				**$**	**31,900,000**
		Estimating Contingency	25%		$	7,975,000
		Design	10%		$	3,190,000
		Construction Engineering	20%		$	6,380,000
		Indirect Cost Allocation Plan	5%		$	1,582,240
	Phase I Total				**$**	**51,000,000**
II: 'Grey' culverts	New 0' to 10'-wide fish passage culvert	EA	3	1,000,000	$	3,000,000
	New 10' to 20'-wide fish passage culvert	EA	20	1,200,000	$	24,000,000
	New 20' to 30'-wide fish passage culvert	EA	3	1,300,000	$	3,900,000
	New >30'-wide fish passage culvert	EA	1	1,500,000	$	1,500,000
	Phase II Subtotal				**$**	**32,400,000**
		Estimating Contingency	25%		$	8,100,000
		Design	10%		$	3,240,000
		Construction Engineering	20%		$	6,480,000
		Indirect Cost Allocation Plan	5%		$	1,607,040
	Phase II Total				**$**	**52,000,000**
	Estimated Total Cost (Project #5 Replace Culverts Inhibiting Fish Passage)				**$**	**103,000,000**

Scope Details for Project #5 Replace Culverts Inhibiting Fish Passage

ADFG Fish Passage Score	Mile post	AK ID	CRWP Survey ID	Scope for 2023 CRH MP	Sum of Cost
Red					
	2.8				
		20100551			
			CopB		
				New 10' to 20'-wide fish passage culvert	$1,200,000
	13				
		20101906			
			Cop0		
				New 20' to 30'-wide fish passage culvert	$1,300,000
	14				
		20100471			
			Cop5		
				New 10' to 20'-wide fish passage culvert	$1,200,000
		20100472			
			Cop6		
				New 10' to 20'-wide fish passage culvert	$1,200,000
	16				
		20100477			
			Cop11		
				New >30'-wide fish passage culvert	$1,500,000
		20100479			
			Cop13		
				New 10' to 20'-wide fish passage culvert	$1,200,000
	17				
		20100481			
			Cop15		
				New 0' to 10'-wide fish passage culvert	$1,000,000
		20100483			
			Cop17		
				New 20' to 30'-wide fish passage culvert	$1,300,000
	19				
		20100490			
			Cop24		
				New 0' to 10'-wide fish passage culvert	$1,000,000
		20100493			
			Cop27		
				New 0' to 10'-wide fish passage culvert	$1,000,000
		20100495			
			Cop29		
				New 10' to 20'-wide fish passage culvert	$1,200,000
	20				
		20100496			
			Cop30		
				New 20' to 30'-wide fish passage culvert	$1,300,000
	21				
		20100498			
			Cop32		
				New 0' to 10'-wide fish passage culvert	$1,000,000
		20100500			

Red	21	20100500	**Cop34**	New 10' to 20'-wide fish passage culvert	$1,200,000
		20100501	**Cop35**	New 10' to 20'-wide fish passage culvert	$1,200,000
		20100502	**Cop36**	New 0' to 10'-wide fish passage culvert	$1,000,000
		20100504	**Cop38**	New 10' to 20'-wide fish passage culvert	$1,200,000
	23	20100505	**Cop39**	New 20' to 30'-wide fish passage culvert	$1,300,000
	25	20100507	**Cop42**	New 0' to 10'-wide fish passage culvert	$1,000,000
		20100512	**Cop46**	New 10' to 20'-wide fish passage culvert	$1,200,000
	26	20100514	**Cop48**	New 0' to 10'-wide fish passage culvert	$1,000,000
		20100539	**Cop49**	New 10' to 20'-wide fish passage culvert	$1,200,000
	29	20100517	**Cop52**	New 20' to 30'-wide fish passage culvert	$1,300,000
	31	20100522	**Cop62**	New 20' to 30'-wide fish passage culvert	$1,300,000
	39	20100523	**Cop65**	New 10' to 20'-wide fish passage culvert	$1,200,000
	41	20100526	**Cop71**	New 10' to 20'-wide fish passage culvert	$1,200,000
	42	20100528	**Cop72**	New 10' to 20'-wide fish passage culvert	$1,200,000
Gray					
	1.8	20203433	**CopA**	New 10' to 20'-wide fish passage culvert	$1,200,000
	14				

Gray	14	20100469	**Cop3**	New >30'-wide fish passage culvert	$1,500,000
	15	20100474	**Cop8**	New 10' to 20'-wide fish passage culvert	$1,200,000
	16	20100478	**Cop12**	New 20' to 30'-wide fish passage culvert	$1,300,000
	17	20100482	**Cop16**	New 20' to 30'-wide fish passage culvert	$1,300,000
	18	20100487	**Cop21**	New 20' to 30'-wide fish passage culvert	$1,300,000
	19	20100492	**Cop26**	New 0' to 10'-wide fish passage culvert	$1,000,000
	24	20100509	**Cop40**	New 10' to 20'-wide fish passage culvert	$1,200,000
	25	20100506	**Cop41**	New 0' to 10'-wide fish passage culvert	$1,000,000
		20100513	**Cop47**	New 0' to 10'-wide fish passage culvert	$1,000,000
	28	20100515	**Cop50**	New 10' to 20'-wide fish passage culvert	$1,200,000
		20100516	**Cop51**	New 10' to 20'-wide fish passage culvert	$1,200,000
	29	20100518	**Cop53**	New 10' to 20'-wide fish passage culvert	$1,200,000
		20100519	**Cop54**	New 10' to 20'-wide fish passage culvert	$1,200,000
		20100520	**Cop55**	New 10' to 20'-wide fish passage culvert	$1,200,000
		20100534	**Cop56**	New 10' to 20'-wide fish passage culvert	$1,200,000
	30				

Gray	30	20100521			
			Cop59		
				New 10' to 20'-wide fish passage culvert	$1,200,000
		20100530			
			Cop61		
				New 10' to 20'-wide fish passage culvert	$1,200,000
		20100531			
			Cop60		
				New 10' to 20'-wide fish passage culvert	$1,200,000
		20100532			
			Cop58		
				New 10' to 20'-wide fish passage culvert	$1,200,000
		20100533			
			Cop57		
				New 10' to 20'-wide fish passage culvert	$1,200,000
	39				
		20100537			
			Cop64		
				New 10' to 20'-wide fish passage culvert	$1,200,000
		20100538			
			Cop63		
				New 10' to 20'-wide fish passage culvert	$1,200,000
	41				
		20100525			
			Cop67		
				New 10' to 20'-wide fish passage culvert	$1,200,000
		20100529			
			Cop70		
				New 10' to 20'-wide fish passage culvert	$1,200,000
		20100536			
			Cop66		
				New 10' to 20'-wide fish passage culvert	$1,200,000
	42				
		20100527			
			Cop73		
				New 10' to 20'-wide fish passage culvert	$1,200,000
Grand Total					**$64,300,000**

Appendix C: Identified Projects and Needs

Data Source: (Coordinate System is AK83-3F)

CRWP Survey ID	AK ID	Mile post	Cost	Scope for 2023 CRH MP	Status	Identified CRWP Project	Identified PEL Project	ADFG Fish Passage Score	Creek Name	Anadromous Waters	Priority	Stream Width or Existing Culvert Width (feet)	Comments	Culvert Length Assumed ft	Most Recent Fish Passage Survey	Prioritization	Culvert type	Culvert dimensions (wxh)	Fish_prese	Upstream_F
CopA	20203433	1.8	$ 1,200,000	New 10' to 20'-wide fish passage culvert	CRWP priority and being investigated for improvements in 2023.	Y	N	Gray	Odiak Pond	Y	II	16	Drainage of Odiak pond into Odiak Slough. The 3 culverts are tidally influenced and placed at different heights, culvert #1 is placed the highest, then #2 an #3 is the lowest. The majority of the water flows through culvert #2 due to culvert #3 having	166	(CRWP,2014)	II: Higher Ecological Condition, Better Culvert Condition	3-CIR	1 - 5 x 5 x 165,	CO-aj, DV-j, CT-j (MT and visual)	Moderate suitability
CopB	20100551	2.8	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red	Eyak Lake Trib	U	III	17	High gradient upland channel flows into Eyak Lake. Cascades over bedrock and boulder pools. Stream gradient is most likely excessive for most fish, > 3' falls are 50 ' above culvert. Though a juvenile dolly varden was caught 200' upstream of the culver	118	(ADFG,2011)	III: Lower Ecological Condition, Worse Culvert Condition	CIR	6 x 6 x 118	DV-j (MT)	Low suitability
CopC	20100553	3.3	$ -	Assume no replacement needed			N	Black	Eyak Lake Trib			6	High bedload, aggraded channel. Dry upstream and downstream of xing. ~ 100' ups of xing, water flows and channel offers good fish hab for ~300' before stream gradient becomes excessive for fish passage.	195	no survey		CIR			Low suitability
CopD	20100554	3.3	$ -	Assume no replacement needed			N	Black	Murchenson Falls			16	High bedload, aggraded channel. ~100 ' of fish hab before waterfalls. Minimal water flows into pipe, flow is lost substrate. Downstream channel is dry.	68	no survey		CIR	4.8 x 5		Low suitability
CopE	20100545	3.7	$ -	Assume no replacement needed			N	Black	Eyak Lake Trib			37	Dry wide channel with hugh bedload. Aggraded channel causes flow substrate. ~100' above crossing water flows and stream offers fish hab.	142	no survey		2- Oval			Low suitability
CopF	20100547	4	$ -	Assume no replacement needed			N	Black	Eyak Lake Trib			20	2 pipes connected together to span long crossing Minimal water in pipe. Small upland channel provides minimal habitat to juvenile fish.	76	no survey		CIR		DV-j, SC (MT)	Low suitability
Cop0	20101906	13	$ 1,300,000	New 20' to 30'-wide fish passage culvert	CRWP Concept Design 2023 with Eyak Corp	Y	N	Red	Sheridan River Trib	Y	II	29	Located downstream of Cab 3 and upstream of Air 1. Inlet is 1/2 full of sediment due to constriction and inlet is overgrown. Bank erosion from recent tree removal at intersection. Adult and juvenile coho are abundant in this system.	122	(ADFG,2011)	II: Higher Ecological Condition, Better Culvert Condition	CIR	3 x 3	Co-aj, DV-j (MT and visual)	Moderate suitability
Cop2	20100468	13	$ -	No replacement needed			N	Green		Y	IV	35	Palustrine channel. Inlet damaged and minor scour of road fill.	108	(CRWP,2017)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3 x 3	CO-j (MT, visual)	Low suitability
Cop1	20100467	13	$ -	Replaced already	2023 CRWP Replacement funded by EVOSTC	Y	N	Red		Y	II	Replaced already	Palustrine channel. Grossly undersized culvert, needs to be replaced. OHW is averaged incised active channel, did not use wetted wetland channel size.	77	(CRWP,2010)	II: Higher Ecological Condition, Better Culvert Condition	CIR	3x3	CO-j,DV-j (MT)	Moderate suitability
Cop3	20100469	14	$ 1,500,000	New >30'-wide fish passage culvert	CRWP Concept Design 2023 with Eyak Corp	Y	N	Gray		Y	II	34	Side channel to Sheridan Glacier River. Pooling ups of inlet. Slow moving slough ds, visually backwatered at crossing. Evidence of an established channel, yet ups hydrology altered by presence of gravel pits.	65	(ADFG,2011)	II: Higher Ecological Condition, Better Culvert Condition	2-CIR	6x3.6	CO-j (visual)	Moderate suitability
Cop5	20100471	14	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red		Y	II	13	Sheridan River outwash flood plain. Ups upland chnl offers good spawning and rearing habitat for salmonids.	68	(CRWP,2010)	II: Higher Ecological Condition, Better Culvert Condition	CIR	3x3	CO-j,DV-j (visual)	Moderate suitability
Cop6	20100472	14	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red		Y	III		Perched outlet and inlet. Minimal water ups, ponding then goes substrate. Abandoned flood channel from Sheridan River. Evidence from 2006 floods. * used downstream widths to calculate constriction ratio.	76	(ADFG,2011)	III: Lower Ecological Condition, Worse Culvert Condition	CIR	4x4	CO-j (visual)	Low suitability
Cop4	20100470	14	$ -	No replacement needed			N	Green		U	IV	67	Palustrine channel. Backwatered at crossing.	67	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x3	U	Low suitability
Cop9	20100475	15	$ -	Replaced already	CRWP Construction funded by EVOSTC	Y	N	Green		Y	II	Replaced already	Sheridan River side channel ups, flows into tiedeman slough. Backwatered at crossing. Sprawled wetland channel directly ups. Established sm crk and pond complex ups of sher1 flows into cop 9 drainage via ditch parallel to hwy. Sedimentation of grvls at i	65	(ADFG,2011)	II: Higher Ecological Condition, Better Culvert Condition	CIR	3x3	CO-j (MT)	Moderate suitability
Cop7	20100473	15	$ -	No replacement needed			N	Green		Y	IV	87	Wetland drainage, minimal water ups, no defined channels. Channel is shown on the AWC map and listed as anadromous.	87	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	5x5	CO-j (AWC)	Unsuitable
Cop8	20100474	15	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Gray		Y	IV		Ponds ups, small wetland chnl downstream. Submerged pipes.	76	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	na	CO-j (visual)	Low suitability
Cop10	20100476	16	$ -	No replacement needed			N	Green		U	IV	90	Large beaver complex. Multiple ponds and sloughs upstream.	90	(CRWP,2017)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	na	ST (MT)	Low suitability
Cop11	20100477	16	$ 1,500,000	New >30'-wide fish passage culvert			N	Red		U	IV	37	Sm incised chnl through bog, series of beaver dams ups. Large slough in 2002, probably due to beaver dam locations. Inlet damage.	97	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	2x2	ST (MT)	Low suitability
Cop12	20100478	16	$ 1,300,000	New 20' to 30'-wide fish passage culvert			N	Gray		Y	IV		Network of slow moving sloughs and ponds.	77	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	5x5	COp (AWC), ST (MT)	Low suitability
Cop13	20100479	16	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red		Y	IV	14	Old Sherman River floodplain. In 2010, slow moving palustrine slough. In 2017, no recent beaver activity, mostly contained wetland channel. Flowing water with gravels upstream and downstream.	66	(CRWP,2017)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4 x 3	CO-j (visual,MT)	Low suitability
Cop14	20100480	17	$ -	No replacement needed			N	Green		U	IV	69	Hydraulic flows exceed capacity. Ponding on ups side, backwatered at xing. No established channel further ups. Flow blocked by beaver activity debris.	69	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	U	Low suitability
Cop15	20100481	17	$ 1,000,000	New 0' to 10'-wide fish passage culvert			N	Red		Y	IV	4	Minimal water in pipe on inlet side. Inlet partially overgrown causing a perched inlet. Minimal fish habitat upstream. Multiple channels and small wetlands peter out approx. 300 m upstream.	70	(CRWP,2017)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3 x 3	No fish caught or observed	Low suitability
Cop17	20100483	17	$ 1,300,000	New 20' to 30'-wide fish passage culvert			N	Red		Y	IV		Sprawled wetland/ponds ups, deep slough ds. Beaver dam inside pipe. Hydraulic flows exceed capacity.	63	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	CO-j (AWC)	Low suitability
Cop16	20100482	17	$ 1,300,000	New 20' to 30'-wide fish passage culvert			N	Gray		Y	I	21	Established wetland and upland channel. Widths up are altered by beaver activity. Flows into Tiedeman Slough. *Used ds widths for constriction ratio.	64	(CRWP,2010)	I: Higher Ecological Condition, Worse Culvert Condition	CIR	6x6	CO-j (visual) CO-a (AWC)	Moderate suitability
Cop18	20100484	18	$ -	No replacement needed			N	Green		Y	IV	4	Connected to the 18 mile system. Backwatered at crossing. Incised chnl through wetland ups.	68	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	CO-j (visual)	Low suitability
Cop19	20100485	18	$ -	No replacement needed			N	Green		Y	IV	7	Connected to the 18 mile system. Ups chnl through wetland. Scour pool at outlet. Backwatered at xing.	69	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	CO-j (visual)	Low suitability
Cop23	20100489	18	$ -	No replacement needed			N	Green		Y	IV	8	Connected to the 18 mile system. Backwatered. Ponding and wetland area directly ups of xing, Sm shallow moderate complexity chnl ups with pools and riffles.	53	(CRWP,2017)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	CO-j (MT, visual)	Low suitability
Cop20	20100486	18	$ -	Replaced already	2021 CRWP R	Y	N	Red	W Fork 18 mile	Y	II	Replaced already	Established complex channel. Beaver activity. Poorly aligned with channel and pipe constriction resulting in sedimentation occuring on inlet side. Ups confluence with Middle Fork 18 mile.	75	(CRWP,2010)	II: Higher Ecological Condition, Better Culvert Condition	CIR	4.7x5.1	CO-j,CT-j (visual) CO-a,CT-a (AWC)	High suitability
Cop21	20100487	18	$ 1,300,000	New 20' to 30'-wide fish passage culvert			N	Gray		Y	II	22	Connected to the 18 mile system. Damaged inlet invert may be from culvert cleaning. Slow moving slough. Appears backwatered.	61	(ADFG,2011)	II: Higher Ecological Condition, Better Culvert Condition	CIR	5 x 5	CO-j (visual)	Moderate suitability
Cop22	20100488	18	$ -	Replaced already	2021 CRWP R	Y	N	Red	Middle Fork 18 mile	Y	II	Replaced already	Established complex channel. Sedimentation occuring ups and ds of xing. Large scour pool and sediment deposition wedge beyond outlet.	90	(CRWP,2010)	II: Higher Ecological Condition, Better Culvert Condition	CIR	6x6	CO-j,CT-j (visual) CO-a,CT-a (AWC)	High suitability
Cop24	20100490	19	$ 1,000,000	New 0' to 10'-wide fish passage culvert			N	Red		Y	IV	8	Small incised wetland chnl, looses chnl definition ~ 100 m ups	60	(CRWP,2010)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	2x2	CO-j (visual)	Low suitability
Cop26	20100492	19	$ 1,000,000	New 0' to 10'-wide fish passage culvert			N	Gray		Y	IV	4	Small hillside drainage connecting ds via ditch to E fork 18 mile, Cop25. Coho use the ditch for spawning and rearing. Waterfall directly ups of xing acting as a fish barrier then substrate flow through spruce forest.	33	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	2x2	CO-j,CT-j (visual)	Unsuitable
Cop27	20100493	19	$ 1,000,000	New 0' to 10'-wide fish passage culvert			N	Red		Y	IV	5	Small hillside spring ups. ds connecting via ditch to Cop 26, and then to E fork 18 mile, Cop25.	41	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	2x1.4	CO-j (visual)	Unsuitable
Cop28	20100494	19	$ -	No replacement needed			N	Green	Haystack Pond	Y	IV	5	Ponds on inlet and outlet sides. Upstream a smal channel parallels highway on south side drains from the E fork of 18 mile system and captures hillside drainages in between flows into the ups pond. Adult coho have been observed spawning here. Abundan j	47	(CRWP,2017)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	5 x 4.6	CO-aj (MT, visual)	Low suitability
Cop29	20100495	19	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red		Y	IV		Small wetland complex drainage, no defined chnl ups. 'flowing the wrong way'. Ups is S of rd, ds flows into upland chnl connected to Goose meadows system.	51	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x3	CO-j (AWC)	Low suitability

Appendix C: Identified Projects and Needs

Cop25	20100491	19	$ -	Replaced already	2021 CRWP R	Y	N	Red	E Fork 18 mile	Y	II	Replaced already	Established complex channel. Main channel of the 18 mile system, Deadtree pond ups.	76	(CRWP,2010)	II: Higher Ecological Condition, Better Culvert Condition	2-CIR	6x6	CO-j (visual) CO-a,CT-a,j (AWC)	High suitability
Cop30	20100496	20	$ 1,300,000	New 20' to 30'-wide fish passage culvert			N	Red	W Fork Goose Meadows	Y	II	29	Shallow slow moving slough. Ups minimal water, little incision. Connects to 2 upland channels of the Goose Meadow system.	63	(CRWP,2010)	II: Higher Ecological Condition, Better Culvert Condition	CIR	5x4.5	CO-j (visual)	Moderate suitability
Cop31	20100497	20	$ -	Replaced already	Replaced in 2016 by CRWP		N	Green	Main Fork Goose Meadows	Y	II	16	Main channel of the Goose Meadow system. Beave complex upstream, large dams located just ups of xing. Backwater on ups side, pooling occuring. Ups upland channels offers good spawning and rearing habitat for DV, CUT, CO.	105	(CRWP,2017)	II: Higher Ecological Condition, Better Culvert Condition	PA	16 x 9	CO-j (visual) CO-a,CT-a,j (AWC)	High suitability
Cop32	20100498	21	$ 1,000,000	New 0' to 10' wide fish passage culvert			N	Red		Y	IV	5	Deep (~3') incised chnl through muskeg ups. Highly feric water and algae. Culvert not placed deep enough. Compound gradient in pipe.	50	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	CO-j (visual)	Low suitability
Cop34	20100500	21	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red		N	IV		Dry abandoned channel from Black Hole. May be used in high flows.	40	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	6x6	N	Unsuitable
Cop35	20100501	21	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red		N	IV		High gradient hillslope runoff into Alaganik river. No defined chnl. Culvert plugged with sediment causing scouring on ds side and rd damage.	40	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	2x1.3	N	Unsuitable
Cop38	20100504	21	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red		U	IV		Sm wetland area ups, dries up ~50' above xing. Shallow wide chnl ds. Sm scour pool above inlet, oversteepened inlet. Inlet and outlet inverts are rusted out.	43	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x3	U	Low suitability
Cop33	20100499	21	$ -	Replaced already	2023 CRWP R	Y	N	Red	Black Hole	Y	II	Replaced already	Slow moving slough ds of xing, proximal to Alaganik River. Upland complex chnl is known spawning and rearing habitat for DV, CT, and CO	50	(CRWP,2010)	II: Higher Ecological Condition, Better Culvert Condition	CIR	5.3x4.7	CO-j (visual) CO-a,CT-a,j (AWC)	High suitability
Cop36	20100502	21	$ 1,000,000	New 0' to 10' wide fish passage culvert	CRWP priority and being investigated for improvements in 2023.	Y	N	Red	Pipeline Trail Creek	Y	II	9	2 culverts misaligned with chnl. Drainage for pipeline lake 1. Headcutting downstream. Old railroad tresses in strm, may be impacting fish migration. Complex upland chnl ups of xing.	50	(ADFG,2011)	II: Higher Ecological Condition, Better Culvert Condition	2-CIR	4x4	CT-j (visual) CO-j, CT-a (AWC)	Moderate suitability
Cop37	20100503	21	$ -	Replaced already	Completed by ADOT 2022		N	Red	Pipeline 4 Creek	Y	I	Replaced already	Wetland complex ups and Pipeline 4 outlet channel. Active headcutting downstream, bank collapses. Large scour pool on outlet side. Scouring of road bed evident.	47	(CRWP,2010)	I: Higher Ecological Condition, Worse Culvert Condition	CIR	4x4	CO-j (visual) CO -a,j, CT-a,j (AWC)	Moderate suitability
Cop39	20100505	23	$ 1,300,000	New 20' to			N	Red	Wrongway	Y	II		Flowing the 'wrong way' (S to N) into the Alaganik	46	(CRWP,2017)	II: Higher	CIR	8.9 x 7.9	CO-j, ST (MT)	Moderate
Cop40	20100509	24	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Gray	Salmon crk drainage	Y	IV		2 culverts in place. Dynamic hydrology in this area pipes appear to be designed for another flow regime. Deep slowing moving slough ds. Shallow grassy slough ups. Site is backwatered but is rated Gray due to inlet grate.	94	(ADFG,2011)	IV: Lower Ecological Condition, Better Culvert Condition	2 - CIR	10 x 10	CO-j (visual)	Low suitability
Cop41	20100506	25	$ 1,000,000	New 0' to 10' wide fish passage culvert			N	Gray		U	IV	3	Beaver pond complex ds ~ 100 m. Incised chnl ups for ~ 50 m, then uplifted area to wetland sprawl. Minimal water ups. Rd bank erosion and rd fill sloughing into creek. Scour pool and sediment dum at outlet. Lots of upwelling downstream.	40	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x3	U	Unsuitable
Cop42	20100507	25	$ 1,000,000	New 0' to 10' wide fish passage culvert			N	Red	Saddlebag pond	Y	IV	10	Stream gradient is calculated using top of beaver dams. Ups is a beaver pond along the Saddlebag access road with an upland channel. Connects to the upland channel of Cop43 and Cop44 via culvert underneath Saddlebag rd.	41	(CRWP,2010)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x2	CO-j (visual)	Low suitability
Cop46	20100512	25	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red	Spawning Channel	Y	IV	13	Along the Saddlebag glacial outwash floodplain. Clear water downstream with lots of groundwater upwelling. Upstream water becomes increasingly glacial, silty. USFS spawning enhancement structures in downstream channel.	47	(CRWP,2010)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	5x5	CO-a (TEK)	Moderate suitability
Cop47	20100513	25	$ 1,000,000	New 0' to 10' wide fish passage culvert			N	Gray		Y	IV	4	Shallow slough ds. Minmal water ups frm springs and ditch drainage. Minimal water flow through pipe	43	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	CO-j (AWC)	Unsuitable
Cop43	20100508	25	$ -	Replaced already	2020 CRWP R	Y	N	Red		Y	II	Replaced already	Scour at inlet and outlet causing rd damage. Washes over road frequently. Flooded area and ponding directly ups of inlet. Upstream, multiple spring fed channels with gravels and increased complexity, largest one being 7.4' wide. Multiple drainage points;	45	(CRWP,2017)	II: Higher Ecological Condition, Better Culvert Condition	CIR	3x3	CO-j (visual)	Moderate suitability
Cop44	20100510	25	$ -	Replaced already	2020 CRWP R	Y	N	Red		Y	II	Replaced already	Complex chnl ups offers spawing and rearing hab. Large beaver slough ds. Drainage problem in this area, flooded N of road. 3 drainage points: Cop 43,44,45	45	(CRWP,2010)	II: Higher Ecological Condition, Better Culvert Condition	CIR	3.7x2.9	CO-j (visual)	High suitability
Cop45	20100511	25	$ -	Replaced already	2020 CRWP R	Y	N	Red		Y	II	Replaced already	Large slough downstream, connected to a vast wetland complex. Slough just upstream of crossing then channel branches into multiple small upland channels with gravels and increased complexity. Lots of groundwater upwelling upstream and downstream. Ups cha	45	(CRWP,2017)	II: Higher Ecological Condition, Better Culvert Condition	CIR	4 x 3	CO-j (visual)	Low suitability
Cop48	20100514	26	$ 1,000,000	New 0' to 10' wide fish passage culvert			N	Red		Y	IV	6	Minimal water, poorly defined chnl ups	46	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	CO-j (AWC)	Unsuitable
Cop49	20100539	26	$ 1,200,000	New 10' to 20'-wide fish passage culvert			N	Red		Y	IV		Shallow slough ds. Shown as an anadromous water on the AWC map yet only a sm ditch ups with minimal water. ups sm ditch ends @ abandoned beaver dam, no access to ponds.	86	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x2	CO-j (AWC)	Unsuitable
Cop50	20100515	28	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		N	IV		Ponds on both sides of xing but not connected to pipe unless high flows. No water in pipe. Western crossing on Long Island.	46	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	2.7x1	N	Unsuitable
Cop51	20100516	28	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		N	IV		Ponds on both sides of xing, standing water in pipe.	49	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3.1x2.8	ST (MT)	Low suitability
Cop52	20100517	29	$ 1,300,000	New 20' to 30'-wide fish passage culvert	PEL priority.		Y	Red		N	IV	60	Ponding on both sides of the crossing. Debris accumulation in front of inlet ccreating a 2' hydraluic jump into pipe. Perched outlet.	60	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	2.8x1.9	ST (MT)	Low suitability
Cop53	20100518	29	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		N	IV		Pond on SE side, ditch drainage on NW side. Standing water in culvert no discernable flow.	58	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x3.6	ST (MT)	Low suitability
Cop54	20100519	29	$ 1,200,000	New 10' to 20'-wide fish passage culvert	CRWP Priority: East of the 37 mile channel wash-out along the CRH. Migratory channels are frequently blocked (total barriers to fish) by unmaintained culverts.	Y	Y	Gray		N	IV		Ponding on SE side, slough on NW side. No discernable flow.	89	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x2.5	ST (MT)	Low suitability
Cop55	20100520	29	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		N	IV		2 culverts with headwalls. Slough on both sides of xing. No discernable flow thru culverts.	60	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	2-CIR	4x4	ST (MT)	Low suitability
Cop56	20100534	29	$ 1,200,000	New 10' to 20'-wide fish passage culvert	CRWP Priority: East of the 37 mile channel wash-out along the CRH. Migratory channels are frequently blocked (total barriers to fish) by unmaintained culverts.	Y	Y	Gray		N	IV		Ponding on both sides. Appears to exceed hydraulic capacity.	60	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	ST (MT)	Low suitability
Cop57	20100533	30	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		N	IV		Ditch drainage, no water. Culverts buried in muck.	75	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x1.3	N	Unsuitable
Cop58	20100532	30	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		N	IV		Small defined chnl downstream connecting to side chnl of the Copper River. Juvenile coho trapped in side channel. Intermittent barrier downstream of crossing. Sprawled wetland ups, linked to pond complex.	80	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x3	ST (MT)	Low suitability
Cop59	20100521	30	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		N	IV		Beaver pond complex on SE side. Wetland on NW side. No connective water flow, standing water in pipe.	85	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x3	ST (MT)	Low suitability

Appendix C: Identified Projects and Needs

Cop60	20100531	30	$ 1,200,000	New 10' to 20'-wide fish passage culvert	CRWP Priority: East of the 37 mile channel wash-out along the CRH. Migratory channels are frequently blocked (total barriers to fish) by unmaintained culverts.	Y	Y	Gray		N	IV		Same ponding and wetland as Cop 58. Culvert almost completely blocked with vegetative mat. Water is being sucked into pipe through small hole.	80	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	1x1	ST (MT)	Low suitability
Cop61	20100530	30	$ 1,200,000	New 10' to 20'-wide fish passage culvert	CRWP Priority: East of the 37 mile channel wash-out along the CRH. Migratory channels are frequently blocked (total barriers to fish) by unmaintained culverts.	Y	Y	Gray		N	IV		Shallow sprawled wetland on SE side. Ponds on NW side. No water connectivity thru pipe. Culvert blocked with vegetative mat.	75	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x2	ST (MT)	Low suitability
Cop62	20100522	31	$ 1,300,000	New 20' to 30'-wide fish passage culvert	PEL priority.		Y	Red		N	IV	60	2 culverts with headwalls. Beaver pond complex on SE side. Culvert intake is dammed with clay and organics, no connective flow. Wetland/slough on NW side. Evidence of high flows. Scouring on inlet side. Eastern crossing on Long Island.	60	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	2-CIR	4x4	ST (MT)	Low suitability
Cop63	20100538	39	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		N	IV		Overflow drainage, no defined chnl ups. No flowing water thru pipe. Drains into clear crk ds. Clear water. Back water area off Clear Crk.	70	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x3	N	Unsuitable
Cop64	20100537	39	$ 1,200,000	New 10' to 20'-wide fish passage culvert			Y	Gray		Y	IV		Minimal water ups and ds. Evidence of higher flows. Incised ups flood chnl. Inlet blocked. Scour pool ds.	70	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	3x3	CO-j (AWC)	Unsuitable
Cop65	20100523	39	$ 1,200,000	New 10' to 20'-wide fish passage culvert	CRWP priority	Y	Y	Red	Cpr Rvr side chnl	Y	IV		Large established side channel of the Copper River. Evidence of high flows. Large bedload deposition beyond outlet and scour pool on upstream and downstream side. Flows into Clear Creek.	80	(CRWP,2010)	IV: Lower Ecological Condition, Better Culvert Condition	2-CIR	12x8	CO-j (MT)	Low suitability
Cop66	20100536	41	$ 1,200,000	New 10' to 20'-wide fish passage culvert	PEL priority.		Y	Gray		Y	IV		Copper River side channel yet no flowing water ups. Defined chnl ds. Backwater area off Clear Creek. Evidence of scouring at inlet and outlet. Inlet completely plugged with debris.	70	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x3	CO-j (AWC)	Unsuitable
Cop67	20100525	41	$ 1,200,000	New 10' to 20'-wide fish passage culvert	PEL and CRM	Y	Y	Gray		Y	IV		Copper River side channel ups flowing into Clear Creek downstream. Adult cohos spawning ds at time of inspection. Compound gradient in pipe. Inlet plugged with silt. Series of overflow pipes present.	70	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	4x4	CO-a (visual)	Low suitability
Cop70	20100529	41	$ 1,200,000	New 10' to 20'-wide fish passage culvert	In washed-out stretch of ro		Y	Gray		N	IV		Copper River side channel flowing parallel to road on ups side. These 2 culverts assist in drainage via ditches. Ds scour pool, yet no flowing water at time of inspection.	70	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	2-CIR	3x2	N	Unsuitable
Cop71	20100526	41	$ 1,200,000	New 10' to 20'-wide fish passage culvert	In washed-out stretch of ro		Y	Red		N	IV		No obvious chnl yet evidence of old flows. Overflow drainage.	40	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	2-CIR	3x3	N	Unsuitable
Cop72	20100528	42	$ 1,200,000	New 10' to 20'-wide fish passage culvert	PEL and CRM	Y	Y	Red	Cpr Rvr side channel	Y	IV		Dynamic Copper River side channel flowing into Clear Crk downstream. Old culvert in place on outlet side yet bent up at an angle out of the water on inlet side. Sedimentation of sand in culvert.	59	(CRWP,2010)	IV: Lower Ecological Condition, Better Culvert Condition	CIR	5x3	CO-j (MT)	Low suitability
Cop73	20100527	42	$ 1,200,000	New 10' to 20'-wide fish passage culvert	PEL and CRM	Y	Y	Gray		Y	IV		Dynamic Copper River side channel flowing into Clear Crk downstream. Inlet plugged w/debris and silt. Large scour pool at outlet. Completely rusted out inverts. Pipe sags in middle.	90	(ADFG,2002)	IV: Lower Ecological Condition, Better Culvert Condition	2-CIR	5x3	CO-j (MT)	Low suitability

Appendix D: All Project Suggestions Mean Score Ranking

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Project No.	Project Description	Mean Score Total	Rank
5	5 - Improve parking at Ibeck Creek and at heavily used fishing locations or widen existing narrow shoulder	12.063	**1**
6	6 - Widen shoulder/separate bike path and safety improvements from MP 0 - MP 13 (Cordova Airport)	11.782	**2**
19	19 - Replace and maintain 36-Mile Bridge (Bridge 339), clear brush, snow, and repair washout; provide access to land beyond MP 36	11.542	**3**
23	23 - Repair and maintain access to Million Dollar Bridge and subsistence and recreational areas past MP 52	11.493	**4**
22	22 - Replace failing culverts and culverts inhibiting fish passage	11.312	**5**
21	21 - Reroute highway around MP 44-45 washout to provide road access north	11.059	6
27	27 - Complete the road to Chitina	10.913	7
1	1 - Add bike path connection from Ferry Terminal	10.895	8
7	7 - Extend utilities to airport and support commercial and industrial development	10.594	9
24	24 - Recreational Aviation Foundation making landing strip improvements past MDB	10.457	10
29	29 - Fix all bridges to access Miles Glacier	10.311	11
17	17 - Replace and maintain existing infrastructure	10.207	12
31	31 - Connect CRH with the Richardson Highway	10.067	13
4	4 - Repave CRH	9.627	14
16	16 - Build boat launch at MP 27	9.585	15
3	3 - Drainage improvements - MP 1-5	9.552	16
2	2 - Add crosswalk markings, lighting, sidewalk, and other safety improvements beginning at MP 0 of CRH	9.4	17
14	14 - Increase parking area for Pipeline Lake and McKinney Lake Trail heads - Parking area improvements to be completed within existing DOT&PF ROW	9.269	18
30	30 - Add turnaround spots for vehicles with trailers	9.133	19
13	13 - Transportation Facilities along the CRH that assist with access to USFS Recreation Cabins	9.012	20
15	15 - Wrong Way Creek parking lot - Parking area improvements to be completed within existing DOT&PF ROW	8.85	21
12	12 - Elevate roadway	8.791	22
11	11 - Improve parking area/access to Haystack Trail	8.676	23
25	25 - Provide access to Childs Glacier	8.31	24
26	26 - Add parking lot and outhouse at MP 52	8.227	25
9	9 - Parking Area - MP 16	8.076	26
10	10 - Develop additional pullouts/parking areas off the highway (Alaganik Slough Area)	7.954	27
20	20 - Build more trails, campsites, and cabins (generally)	7.751	28
8	8 - Provide access to The Chugach Alaska Corporation's Material Sites; Material Site Development	6.987	29
28	28 - Add trailheads and outhouses	6.858	30
18	18 - Decommission the highway past MP 27	6.322	31